

- Off Grid inverter
- On Grid inverter with Energy Storage
- On Grid inverter
- Solar Charge Controller
- Inverter/Charger
- Inverter
- Portable Power Storage



**Best Choice For Solar**

**BEST CHOICE FOR SOLAR**

Easun Power Technology Corp Limited

Web: [https:// www.easunpower.com](https://www.easunpower.com)

## COMPANY PROFILE:

Easun Power Technology Corp Limited is a leading high-tech enterprise which established in Shenzhen, China in 2012. A professional and vigorous new energy company with dedication to bring green energy to the world.

We offers a full range of Solar product including : Solar inverters/ Solar Charge Controllers / Power inverters / Batteries/ Solar panels / Solar Accessories, etc. Our products are now capable of meeting requirements for both residential and commercial applications.

## KEY VALUE:

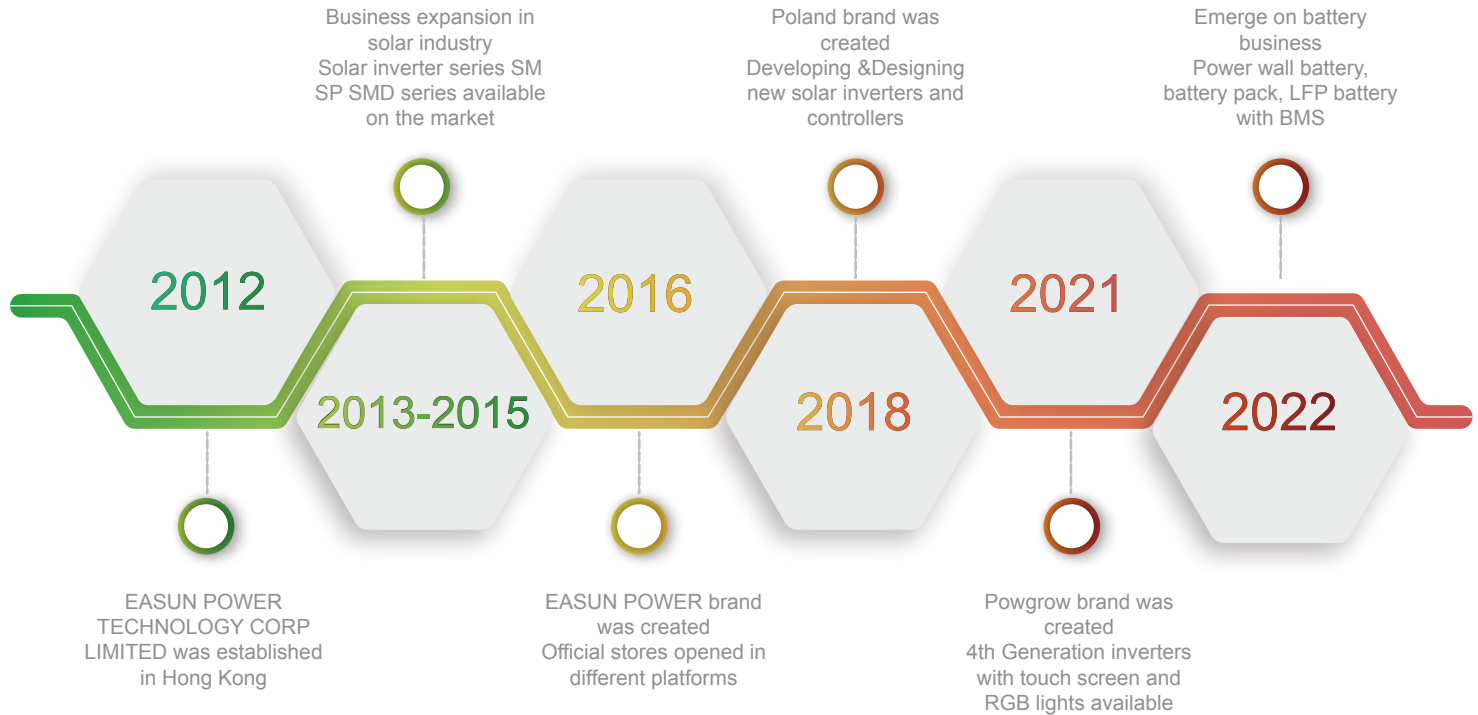
## BEST CHOICE FOR SILAR

As a team of professional and experienced specialists in the field of inverter charger, we have strong R&D, manufacture and quality control of our products, and commit to offer high quality products. We have a comprehensive sales & marketing network and experienced after-service center, commits to build mutual trust and make common progresses with our customers from all over the world.

Easun Power provides the best service for our customers and aims to be the leading inverter charger supplier in the world !



## DEVELOPMENT HISTROY



## CERTIFICATE:CE ROHS FCC ETL EMC



## WHY EASUN



### Industry Experience

10+ years  
experience  
in solar industry



### Markets Share

4 million +  
clients from the  
whole world



### Overseas Warehouse

6 + overseas  
warehouses located in  
6 different continents



### Global Partners

50+ cooperated  
global partners

## EXCERLLENT SUPPORT

From pre-sales inquiries to after-sales support, our team will offer  
24 hours 7 days' in time service



Service Center



Question answer



System design



Installation Instructions



Product  
system upgrade



Perfect warranty



Market  
development support



Technical support  
for bidding projects

## MARKETS SHARE



EASUN has provided solar products and related service to over 180 countries in the past 10 years , and we're aiming to provide more quality products and good service our clients.

To make sure our clients could get instant support, we now are co-operated with agents from different countries, also to expand our business we're looking for more partners to join us, let's work together and make a better business and life



## INVERTER USING SCENARIO



Solar energy  
storage



Planting  
breeding base



Mountain communication  
base station



UPS uninterruptible  
power supply



Home energy storage



Communication base  
station energy storage



RV Outdoor  
Electricity



Medical System  
Equipment



## CONTENTS

### OFF-GRID SOLAR INVERTER 220VAC

|                   |       |
|-------------------|-------|
| 1000-2000W SERIES | ----- |
| 2000-4000W SERIES | ----- |
| 5000-6000W SERIES | ----- |
| 8KW-11KW SERIES   | ----- |
| IP65 SERIES       | ----- |

### HYBRID SOLAR INVERTER 220VAC

|                          |       |
|--------------------------|-------|
| 3000W SERIES             | ----- |
| 5000-6000W SERIES        | ----- |
| 3 PHASE 10KW 15KW SERIES | ----- |
| 3 PHASE 20-30KW SERIES   | ----- |

### OFF-GRID SOLAR INVERTER 110VAC

|                   |       |
|-------------------|-------|
| 1000-4000W SERIES | ----- |
| 5000-8000W SERIES | ----- |

### HYBRID SOLAR INVERTER 110VAC

|                   |       |
|-------------------|-------|
| 3000-6000W SERIES | ----- |
| IP65 SERIES       | ----- |

### SOALR CHARGE CONTROLLER

|                      |       |
|----------------------|-------|
| MPPT 10A-40A SERIES  | ----- |
| MPPT 60A             | ----- |
| MPPT 80A-100A SERIES | ----- |
| PWM 10A-100A SERIES  | ----- |

### BATTERY

|                               |       |
|-------------------------------|-------|
| 5Kwh 10Kwh POWER WALL BATTERY | ----- |
| BATTERY PACK 5Kwh-100Kwh      | ----- |
| LFP BATTERY                   | ----- |
| 12VDC LEAD ACID BATTERY       | ----- |

### POWER/CAR INVERTER

|                    |       |
|--------------------|-------|
| PURE SINE WAVE     | ----- |
| MODIFIED SINE WAVE | ----- |

# Solar Inverter

## ISOLAR INVERTER



ISolar SMH 3KW

ISolar SPH 3KW

- Pure sine wave inverter
- Built-in MPPT solar charge controller
- Selectable input voltage range for home appliances and personal computers.
- Selectable charging current based on applications
- Configurable AC/Solar input priority via LCD setting
- Compatible to mains voltage or generator power
- Auto restart while AC is recovering
- Overload and short circuit protection
- Smart battery charger design for optimized battery performance



PC



TV



Electric fan

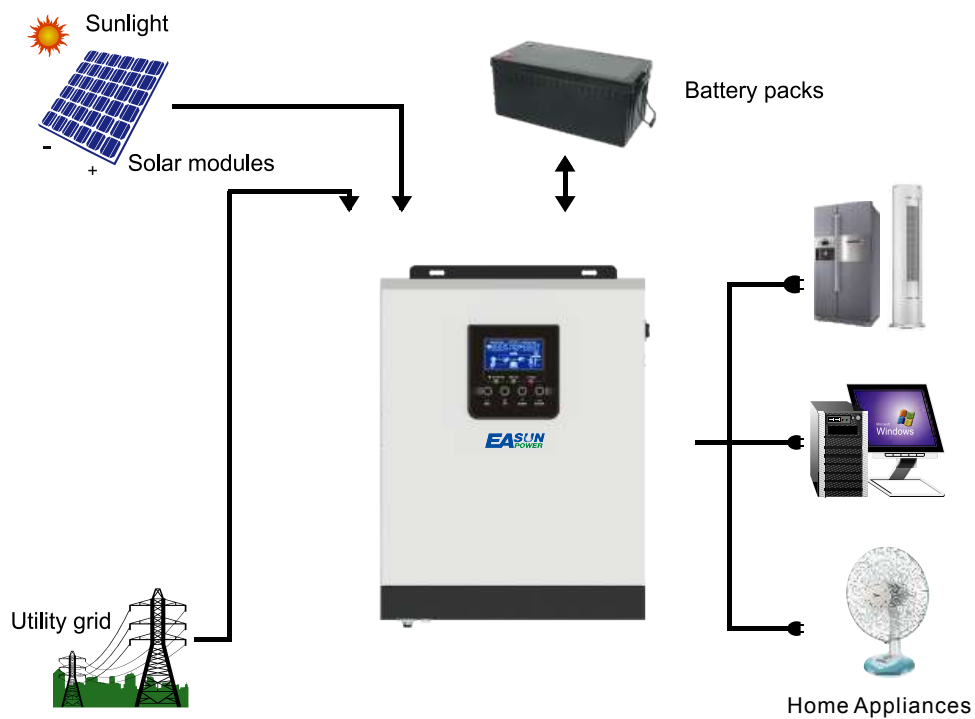


FM Radio



Solar Power

## System connection diagram:



# ISolar inverter Technical parameters

| MODEL                                 | ISolar SMH 3KW                                                    |  | ISolar SPH 3KW |  |
|---------------------------------------|-------------------------------------------------------------------|--|----------------|--|
| Rated Power                           | 3000VA/2400W                                                      |  |                |  |
| INPUT                                 |                                                                   |  |                |  |
| Voltage                               | 230VAC                                                            |  |                |  |
| Selectable Voltage Range              | 170-280VAC(for personal computers) 90-280VAC(for home appliances) |  |                |  |
| Frequency Range                       | 50Hz/60Hz (Auto sensing)                                          |  |                |  |
| OUTPUT                                |                                                                   |  |                |  |
| AC Voltage Regulation (Batt.Mode)     | 230VAC±5%                                                         |  |                |  |
| Surge power                           | 6000VA                                                            |  |                |  |
| Efficiency(Peak)                      | 93%                                                               |  |                |  |
| Transfer Time                         | 10ms (for personal computers) 20ms (for home appliances)          |  |                |  |
| Wave form                             | Pure Sine Wave                                                    |  |                |  |
| BATTERY                               |                                                                   |  |                |  |
| Battery Voltage                       | 24VDC                                                             |  | 24VDC          |  |
| Floating Charge Voltage               | 27VDC                                                             |  | 27VDC          |  |
| Overcharge Protection                 | 31VDC                                                             |  | 30VDC          |  |
| SOLAR CHARGER                         |                                                                   |  |                |  |
| Maximum PV Array Power                | 1000W                                                             |  | 1200W          |  |
| Maximum PV Array Open Circuit Voltage | 102VDC                                                            |  | 80VDC          |  |
| MPPT Range @ Operating Voltage        | 30-80VDC                                                          |  | 30-40VDC       |  |
| Maximum Solar Charging Current        | 40A                                                               |  | 50A            |  |
| Maximum AC Charging Current           | 20A or 30A                                                        |  |                |  |
| Maximum Charging Current              | 70A                                                               |  | 80A            |  |
| Standby Power Consumption             | 2W                                                                |  |                |  |
| Maximum Efficiency                    | 98%                                                               |  |                |  |
| PHYSICAL                              |                                                                   |  |                |  |
| Dimension.D*W*H(mm)                   | 305*272*100                                                       |  |                |  |
| Net Weight (kgs)                      | 5.2kg                                                             |  |                |  |
| OPERATING ENVIRONMENT                 |                                                                   |  |                |  |
| Humidity                              | 5% to 95% Relative Humidity(Non-condensing)                       |  |                |  |
| Operating Temperature                 | 0°C to 55°C                                                       |  |                |  |
| Storage Temperature                   | -15°C to 60°C                                                     |  |                |  |

# Solar Inverter

## ISolar SPR 1-5KW PWM Solar Inverter



- Pure sine wave inverter
- Built-in MPPT solar charge controller
- Selectable input voltage range for home appliances and personal computers.
- Selectable charging current based on applications
- Configurable AC/Solar input priority via LCD setting
- Compatible to mains voltage or generator power
- Auto restart while AC is recovering
- Overload and short circuit protection
- Smart battery charger design for optimized battery performance

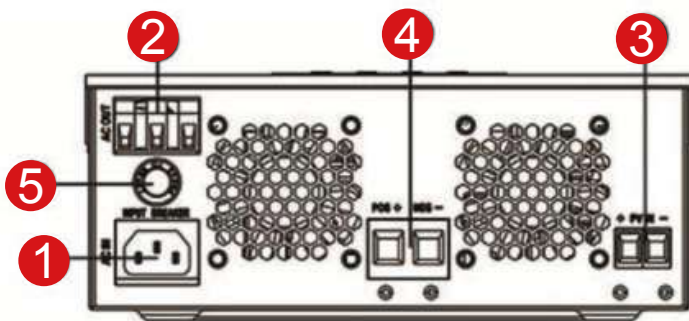
1kW=1kVA

Electric fan

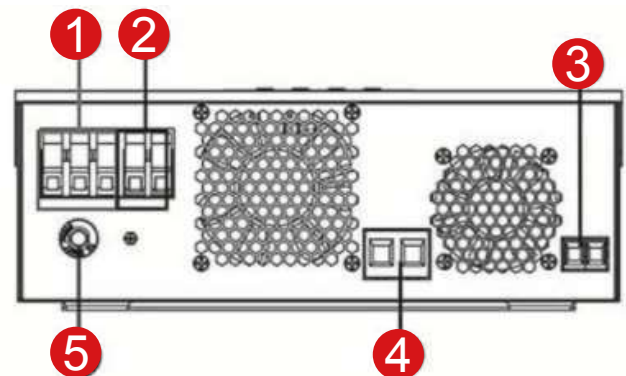
PC

TV

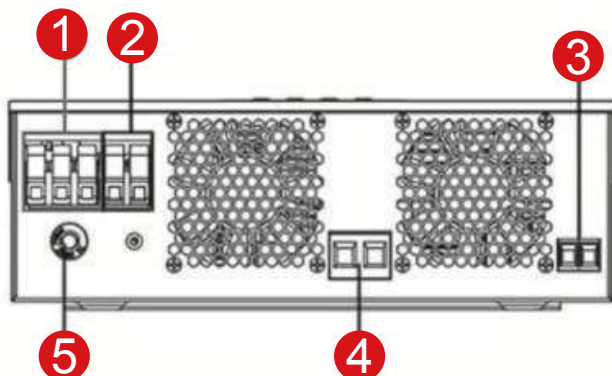
Solar Power



1KVA/2KVA



3KVA



3KVA/5KVA

- ① AC input
- ② AC output
- ③ PV input
- ④ Battery input
- ⑤ Circuit breaker

# ISolar SPR Technical parameters

Wall Mounted Integrated Solar Power Inverter Technical Specification  
Built-in MPPT Solar Controller

| Model                                 | SPR 1K 12V                                                              |                 | SPR 3K 24V      | SPR 5K 48V   |
|---------------------------------------|-------------------------------------------------------------------------|-----------------|-----------------|--------------|
| Rated Power                           | 1000VA/1000W                                                            |                 | 3000VA/3000W    | 5000VA/5000W |
| INPUT                                 |                                                                         |                 |                 |              |
| Voltage                               | 230 VAC                                                                 |                 |                 |              |
| Selectable Voltage Range              | 170-280 VAC (For Personal Computers) ; 90-280 VAC (For Home Appliances) |                 |                 |              |
| Frequency Range                       | 50 Hz/60 Hz (Auto sensing)                                              |                 |                 |              |
| OUTPUT                                |                                                                         |                 |                 |              |
| AC Voltage Regulation (Batt. Mode)    | 230VAC ± 5%                                                             |                 |                 |              |
| Surge Power                           | 2000VA                                                                  | 6000VA          | 10000VA         |              |
| Efficiency (Peak)                     | 90%~93%                                                                 |                 |                 |              |
| Transfer Time                         | 10 ms (For Personal Computers) ; 20 ms (For Home Appliances)            |                 |                 |              |
| Waveform                              | Pure sine wave                                                          |                 |                 |              |
| BATTERY                               |                                                                         |                 |                 |              |
| Battery Voltage                       | 12VDC                                                                   | 24VDC           | 48VDC           |              |
| Floating Charge Voltage               | 13.5VDC                                                                 | 27VDC           | 54VDC           |              |
| Overcharge Protection                 | 16VDC                                                                   | 33VDC           | 63VDC           |              |
| SOLAR CHARGER & AC CHARGER            |                                                                         |                 |                 |              |
| Solar Charger type                    | PWM                                                                     | PWM             | PWM             |              |
| Maximum PV Array Open Circuit Voltage | 55VDC                                                                   | 80VDC           | 105VDC          |              |
| Maximum PV Array Power                | 600W                                                                    | 1200W           | 2400W           |              |
| MPPT Range @ Operating Voltage        | N/A                                                                     | N/A             | N/A             |              |
| Maximum Solar Charge Current          | 50A                                                                     | 50A             | 50A             |              |
| Maximum AC Charge Current             | 20A                                                                     | 25A             | 60A             |              |
| Maximum Charge Current                | 50A                                                                     | 70A             | 110A            |              |
| PHYSICAL                              |                                                                         |                 |                 |              |
| Dimension, D x W x H (mm)             | 88 x 225 x 320                                                          | 100 x 285 x 334 | 100 x 300 x 440 |              |
| Net Weight (kgs)                      | 4.4                                                                     | 6.3             | 8.5             |              |
| Communication Interface               | USB/RS232                                                               |                 |                 |              |
| ENVIRONMENT                           |                                                                         |                 |                 |              |
| Humidity                              | 5% to 95% Relative Humidity (Non-condensing)                            |                 |                 |              |
| Operating Temperature                 | -10°C to 50°C                                                           |                 |                 |              |
| Storage Temperature                   | -15°C to 60°C                                                           |                 |                 |              |

# Solar Inverter

## ISolar SMV IV 3.6KW 5.6KW MPPT Solar Inverter



- Customizable status LED ring with RGB lights
- Touchable button with 4.3" colored LCD
- Built-in Wifi for mobile monitoring (App is available)
- Supports USB On-the-Go function
- Data log events stored in the inverter
- Reserved communication port(RS485, CAN-BUS or RS232) for BMS
- Battery independent design
- Battery equalization extends lifecycle
- User-friendly LCD operation
- Enhanced charging power
- Built-in anti-dust kit

User-programmable RGB lighting for different operation mode



Pink



Orange



Yellow



Green



Blue



Sky Blue



Purple

Three lighting effects



**Cycling**  
Quickly scrolling with a color of your choice in a continuous circular motion

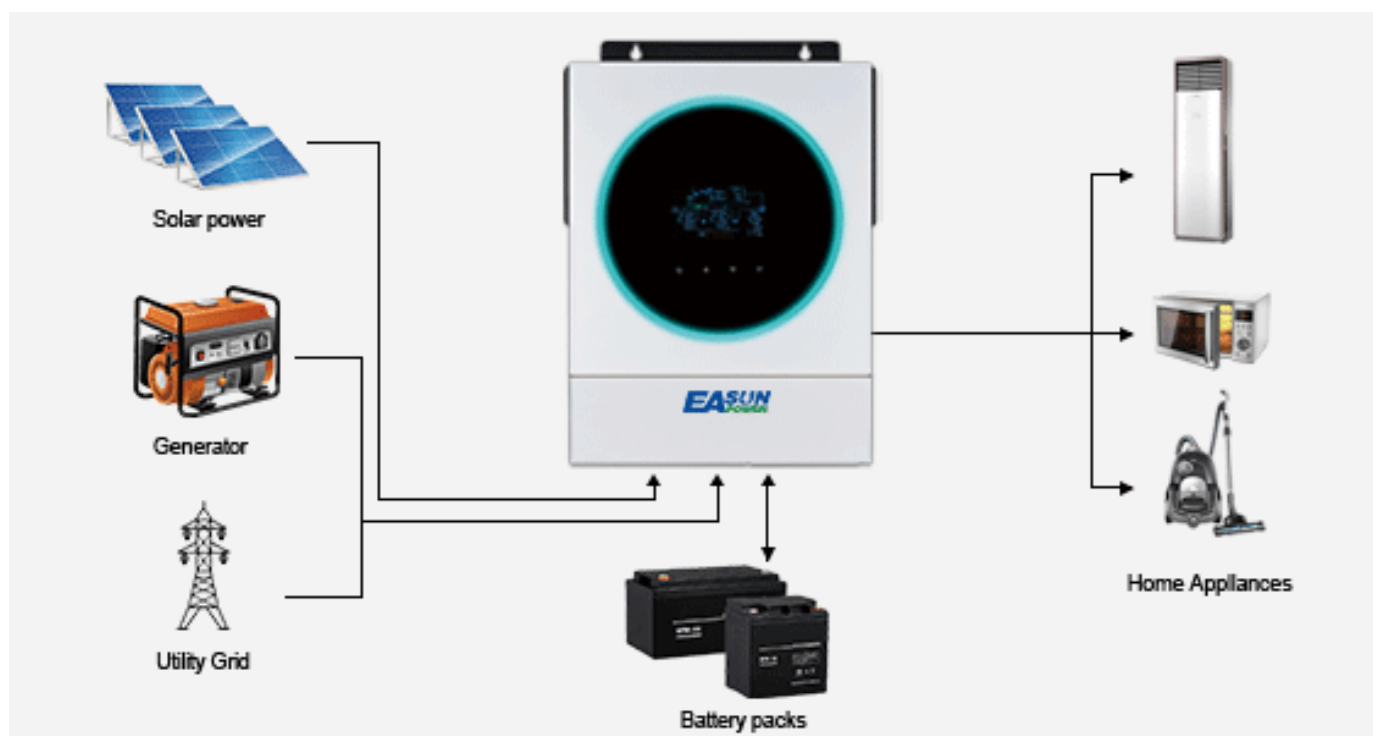


**Wheel**  
Illuminates with twinkling lights in a color of your choice



**Chasing**  
Radiates your selected color upward from the bottom of the ring

### System Diagram



# ISolar SMV-IV Off-Grid Inverter Selection Guide

| MODEL                                 | ISolar SMV IV 3600-24                                                   |         | ISolar SMV IV 5600-4 |
|---------------------------------------|-------------------------------------------------------------------------|---------|----------------------|
| Rated Power                           | 3600VA/3600W                                                            |         | 5600VA/5600W         |
| INPUT                                 |                                                                         |         |                      |
| Voltage                               | 230 VAC                                                                 |         |                      |
| Selectable Voltage Range              | 170-280 VAC (For Personal Computers) ; 90-280 VAC (For Home Appliances) |         |                      |
| Frequency Range                       | 50 Hz/60 Hz (Auto sensing)                                              |         |                      |
| OUTPUT                                |                                                                         |         |                      |
| AC Voltage Regulation (Batt. Mode)    | 230 VAC ± 5%                                                            |         |                      |
| Surge Power                           | 7200VA                                                                  | 11200VA |                      |
| Efficiency (Peak)                     | 90% ~ 93%                                                               |         |                      |
| Transfer Time                         | 15 ms (For Personal Computers) ; 20 ms (For Home Appliances)            |         |                      |
| Waveform                              | Pure sine wave                                                          |         |                      |
| BATTE                                 |                                                                         |         |                      |
| Battery Voltage                       | 24 VDC                                                                  | 48 VDC  |                      |
| Floating Charge Voltage               | 27 VDC                                                                  | 54 VDC  |                      |
| Overcharge Protection                 | 33 VDC                                                                  | 63 VDC  |                      |
| SOLAR CHARGER &                       |                                                                         |         |                      |
| Solar Charger Type                    | MPPT                                                                    |         |                      |
| Maximum PV Array Power                | 4000 W                                                                  |         |                      |
| MPPT Range @ Operating Voltage        | 120 ~ 450 VDC                                                           |         |                      |
| Maximum PV Array Open Circuit Voltage | 500 VDC                                                                 |         |                      |
| Maxmum Solar Charge Current           | 120 A                                                                   |         |                      |
| Maximum AC Charge Current             | 100 A                                                                   |         |                      |
| Maximum Charge Current                | 120 A                                                                   |         |                      |
| PHYSICAL                              |                                                                         |         |                      |
| Dimension, D x W x H (mm)             | 115 x 300 x 400                                                         |         |                      |
| Net Weight (kgs)                      | 9.0                                                                     |         |                      |
| Communication Interface               | USB/RS232/RS485/WiFi/Dry-contact                                        |         |                      |
| OPERATING ENVIRONMENT                 |                                                                         |         |                      |
| Humidity                              | 5% to 95% Relative Humidity(Non-condensing)                             |         |                      |
| Operating Temperature                 | -10°C to 50°C                                                           |         |                      |
| Storage Temperature                   | -15°C to 60°C                                                           |         |                      |

Product specifications are subject to change without further notice.

# Solar Inverter

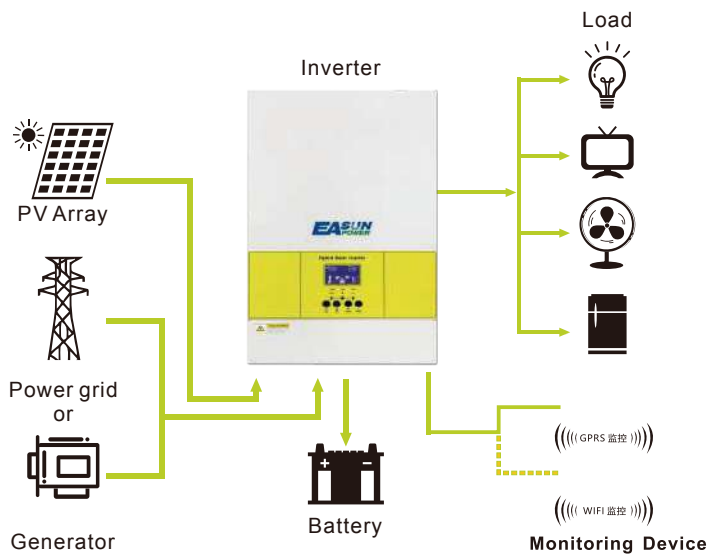
## ISolar SMG II 3.6KW-5.6KP MPPT Solar Inverter



- Pure sine wave solar inverter
- Output power factor 1
- High PV input voltage range
- Built-in MPPT solar controller
- Battery equalization function to optimize battery performance and extend lifecycle
- Inverter running without battery
- Built-in anti-dusk kit for harsh environment
- Parallel operation with up to 12 units
- WiFi/GPRS remote monitoring(Optional)
- Detachable LCD(Optional)

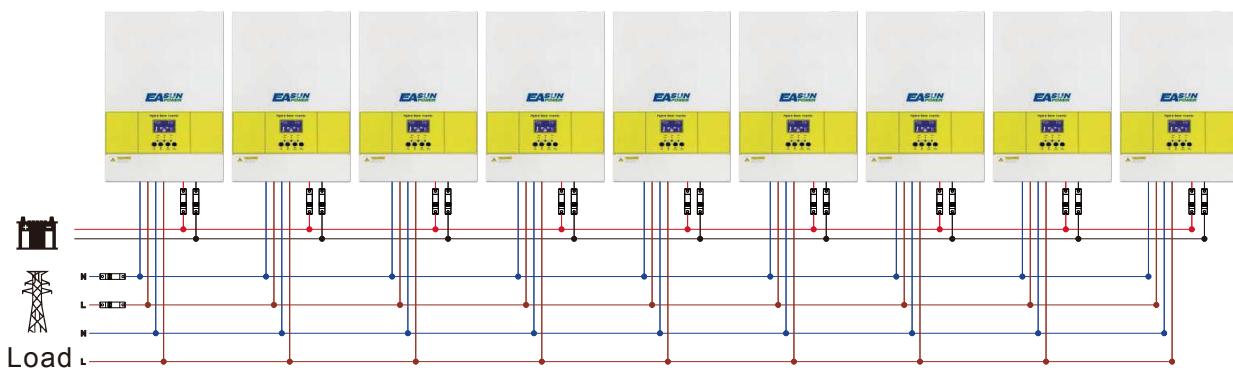
This is a multi-functional inverter/charger, combining functions of inverter, solar charger and battery charger to offer uninterruptible size. Its comprehensive LCD display offers use-configurable and easy-accessible button operation such as battery charging current, AC/solar charger priority, and acceptable input voltage based on different applications.

### Application Diagram:

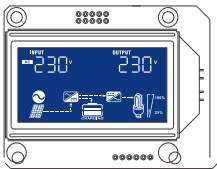


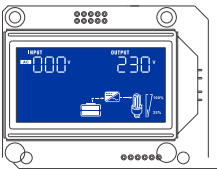
Mobile APP

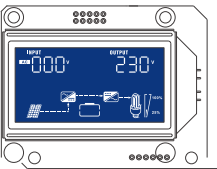
Remote Control

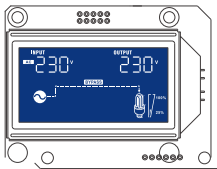


# System Diagram

1

2

3

4

1.With battery, solar and AC available

2.With battery, solar and AC not available

3.Without battery, solar available

4.Without battery, AC available

# Technical Data

| MODEL                              | ISolar SMG II 3.6KW                                                |  | ISolar SMG II 5.6KW |  | ISolar SMG II 5.6KP |  |
|------------------------------------|--------------------------------------------------------------------|--|---------------------|--|---------------------|--|
| CAPACITY                           | 3.6KVA/3.6KW                                                       |  | 5.6KVA/5.6KW        |  | 5.6KVA/5.6KW        |  |
| Parallel Capability                | NO                                                                 |  | NO                  |  | Yes,9pcs            |  |
| INPUT                              |                                                                    |  |                     |  |                     |  |
| Nominal Voltage                    | 230VAC                                                             |  |                     |  |                     |  |
| Acceptable Voltage Range           | 170-280VAC (For personal Computer);90-280VAC (For Home Appliances) |  |                     |  |                     |  |
| Frequency                          | 50/60 Hz (Auto sensing)                                            |  |                     |  |                     |  |
| OUTPUT                             |                                                                    |  |                     |  |                     |  |
| Nominal Voltage                    | 220/230VAC ±5%                                                     |  |                     |  |                     |  |
| Surge Power                        | 7000VA                                                             |  | 11000VA             |  | 11000VA             |  |
| Frequency                          | 50/60 Hz                                                           |  |                     |  |                     |  |
| Waveform                           | Pure Sine wave                                                     |  |                     |  |                     |  |
| Transfer Time                      | 10ms(For personal Computer);20ms(For Home Appliances)              |  |                     |  |                     |  |
| Peak Efficiency (PV to INV)        | 96%                                                                |  |                     |  |                     |  |
| Peak Efficiency (Battery to INV)   | 93%                                                                |  |                     |  |                     |  |
| Overload Protection                | 5s@ >=150% load; 10s@ 110%~150% load                               |  |                     |  |                     |  |
| Crest Factor                       | 3:1                                                                |  |                     |  |                     |  |
| Admissible Power Factor            | 0.6~1 (inductive or capacitive)                                    |  |                     |  |                     |  |
| BATTERY                            |                                                                    |  |                     |  |                     |  |
| Battery Voltage                    | 24VDC                                                              |  | 48VDC               |  | 48VDC               |  |
| Floating Charge Voltage            | 27VDC                                                              |  | 54VDC               |  | 54VDC               |  |
| OverCharge Protection              | 33VDC                                                              |  | 63VDC               |  | 63VDC               |  |
| Charging Method                    | CC/CV                                                              |  |                     |  |                     |  |
| Solar Charger & AC Charger         |                                                                    |  |                     |  |                     |  |
| Solar Charger TYPE                 | MPPT                                                               |  |                     |  |                     |  |
| Max.PV Array Power                 | 4000W                                                              |  | 5500W               |  | 5500 W              |  |
| Max. PV Array Open Circuit Voltage | 500VDC                                                             |  |                     |  |                     |  |
| PV Array MPPT Voltage Range        | 120VDC~450VDC                                                      |  |                     |  |                     |  |
| Max. Solar Input Current           | 15A                                                                |  | 18A                 |  | 18A                 |  |
| Max. Solar Charge Current          | 100A                                                               |  | 100A                |  | 100A                |  |
| Max. AC Charge Current             | 60A                                                                |  | 60A                 |  | 60A                 |  |
| Max. Charge Current                | 100A                                                               |  | 100A                |  | 100A                |  |
| PHYSICAL                           |                                                                    |  |                     |  |                     |  |
| Dimensions, D x W x H(mm)          | 482x290x113                                                        |  |                     |  |                     |  |
| Package Dimensions, D x W x H(mm)  | 565x380x190                                                        |  |                     |  |                     |  |
| Net Weight (Kgs)                   | 9                                                                  |  | 10                  |  | 10                  |  |
| Communication Interface            | USB/RS232/Dry-contact                                              |  |                     |  |                     |  |
| ENVIRONMENT                        |                                                                    |  |                     |  |                     |  |
| Operating Temperature Range        | -10°C to 50°C                                                      |  |                     |  |                     |  |
| Storage temperature                | -15°C~ 60°C                                                        |  |                     |  |                     |  |
| Humidity                           | 5% to 95% Relative Humidity (Non-condensing)                       |  |                     |  |                     |  |

Product specifications are subject to change without further notice.

# Solar Inverter

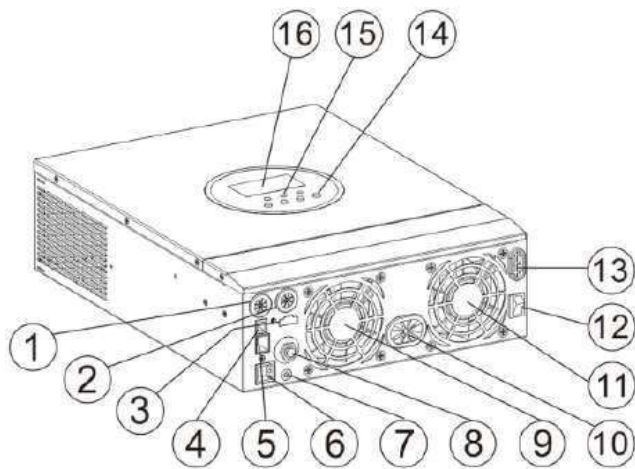
## ISolar SMX II 3.6KW 5.6KW MPPT Solar Inverter



- Full digital voltage and current double closed loop control, advanced SPWM technology, output of pure sine wave.
- Two output modes: mains bypass and inverter output; uninterrupted power supply.
- Available in 4 charging modes: Only Solar, Mains Priority, Solar Priority and Mains & Solar hybrid charging.
- Advanced MPPT technology with an efficiency of 99.9%.
- With the charging requirement (voltage, current, mode) settings, and suitable for various types of energy storage batteries.
- ON/OFF rocker switch for AC output control.
- Power saving mode available to reduce no-load loss.
- Intelligent variable speed fan to efficiently dissipate heat and extend system life.
- Lithium battery activation design, allowing access of lead-acid battery and lithium battery.
- 360 ° all-round protection with a number of protection functions. Such as overload, short circuit and over current.
- Supply of a variety of user-friendly communication modules, such as RS485(GPRS, WiFi ), USB etc., and suitable for computer, mobile phones, Internet monitoring as well as remote operations.
- Lithium battery can be activated by both mains and PV.

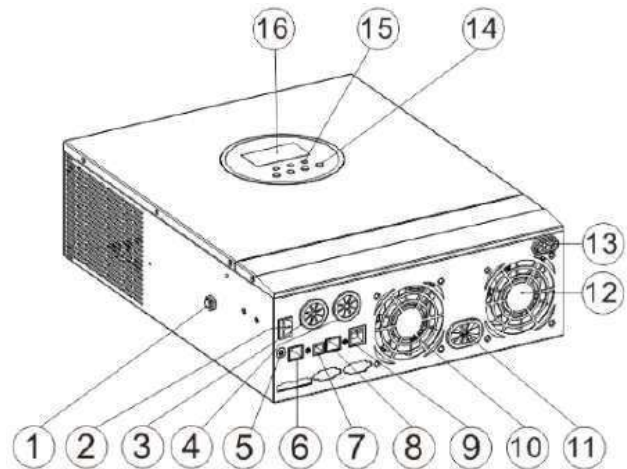
HF series is a new all-in-one hybrid solar charge inverter, which integrates solar energy storage & means charging energy storage and AC sine wave output. Thanks to DSP control and advanced control algorithm, it has high response speed, high reliability and high industrial standard.

### Appearance 3.6KW:



|   |                           |    |                      |
|---|---------------------------|----|----------------------|
| ① | AC input port             | ⑨  | Cooling fan          |
| ② | AC output port            | ⑩  | Battery port         |
| ③ | CAN communication port    | 11 | Cooling fan          |
| ④ | USB communication port    | 12 | ON/OFF rocker switch |
| ⑤ | Rs 485 communication port | 13 | PV port              |
| ⑥ | Dry contact port          | 14 | Touch button         |
| ⑦ | Grounding screw hole      | 15 | LED Indicator        |
| ⑧ | Overload protector        | 16 | LCD screen           |

### Appearance 5.6KW:



|   |                             |    |                       |
|---|-----------------------------|----|-----------------------|
| ① | Overload protector          | ⑨  | Dry contact port      |
| ② | ON/OFF rocker switch        | ⑩  | Cooling fan           |
| ③ | AC input port               | 11 | Battery port          |
| ④ | AC output port              | 12 | Cooling fan           |
| ⑤ | Grounding screw hold        | 13 | PV port               |
| ⑥ | RS 485-2 communication port | 14 | Touch the key lightly |
| ⑦ | USB communication port      | 15 | Indicator light       |
| ⑧ | RS 485-1 communication port | 16 | LCD screen            |

# ISolar SMX II Technical parameters

| Models                                 | ISolar-SMX-II-3.6KW                                                                                                            | ISolar-SMX-II-5.6KW                    |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| AC mode                                |                                                                                                                                |                                        |
| Rated input voltage                    | 220/230Vac                                                                                                                     |                                        |
| Input voltage range                    | (170Vac~280Vac) ±2%; (90Vac-280Vac)±2%                                                                                         |                                        |
| Frequency                              | 50Hz/ 60Hz (Auto detection)                                                                                                    |                                        |
| Frequency Range                        | 47±0.3Hz ~ 55±0.3Hz (50Hz)/57±0.3Hz ~ 65±0.3Hz (60Hz);                                                                         |                                        |
| Overload/short circuit protection      | Circuit breaker                                                                                                                |                                        |
| Efficiency                             | >95%                                                                                                                           |                                        |
| Conversion time (bypass and inverter)  | 10ms (typical)                                                                                                                 |                                        |
| AC reverse protection                  | Available                                                                                                                      |                                        |
| Maximum bypass overload current        | 30A                                                                                                                            | 40A                                    |
| Inverter mode                          |                                                                                                                                |                                        |
| Output voltage waveform                | Pure sine wave                                                                                                                 |                                        |
| Rated output power (VA)                | 3600                                                                                                                           | 5600                                   |
| Rated output power (W)                 | 3600                                                                                                                           | 5600                                   |
| Power factor                           | 1                                                                                                                              | 1                                      |
| Rated output voltage (Vac)             | 230Vac                                                                                                                         | 230Vac ( 200/208/220/240Vac settable ) |
| Output voltage error                   | ±5%                                                                                                                            |                                        |
| Output frequency range (Hz)            | 50Hz ± 0.3Hz/60Hz ± 0.3Hz                                                                                                      | 50Hz ± 0.3Hz/60Hz ± 0.3Hz              |
| Efficiency                             | >92%                                                                                                                           | >90%                                   |
| Peak power                             | 6000VA                                                                                                                         | 10000VA                                |
| Loaded motor capability                | 2HP                                                                                                                            | 4HP                                    |
| Output short circuit protection        | Circuit breaker                                                                                                                | Circuit breaker                        |
| Bypass breaker specifications          | 30A                                                                                                                            | 40A                                    |
| Rated battery input voltage            | 24V (Minimum starting voltage 22V)                                                                                             | 48V (minimum start voltage 44V)        |
| Battery voltage range                  | 20.0Vdc~33Vdc ± 0.6Vdc (Undervoltage alarm/shutdown voltage overvoltage alarm /overvoltage recovery... settable on LCD screen) |                                        |
| Power saving mode                      | Load ≤50W                                                                                                                      |                                        |
| AC charging                            |                                                                                                                                |                                        |
| Battery type                           | Lead acid or lithium battery                                                                                                   |                                        |
| Maximum charge current                 | 80A                                                                                                                            | 60A                                    |
| Charge voltage range                   | 20.0Vdc~33Vdc                                                                                                                  | 40~60Vdc                               |
| Short circuit protection               | Circuit breaker and blown fuse                                                                                                 | Breaker and blown fuse                 |
| Circuit breaker specifications         | 30A                                                                                                                            | 40A                                    |
| Overcharge protection                  | Alarm and turn off charging after 1 minute                                                                                     |                                        |
| PV charging                            |                                                                                                                                |                                        |
| Maximum PV open circuit voltage        | 500Vdc                                                                                                                         | 500Vdc                                 |
| PV operating voltage range             | 120-500Vdc                                                                                                                     | 120-500Vdc                             |
| MPPT voltage range                     | 120-450Vdc                                                                                                                     | 120-450Vdc                             |
| Battery voltage range                  | 20-33Vdc                                                                                                                       | 40-60Vdc                               |
| Maximum input power                    | 4000W                                                                                                                          | 6000W                                  |
| PV charging current range (can be set) | 0-80A                                                                                                                          | 0-80A                                  |
| Charging short circuit protection      | Blown fuse                                                                                                                     | Blown fuse                             |
| Wiring protection                      | Reverse polarity protection                                                                                                    | Inverse wiring protection              |
| Certified specifications               |                                                                                                                                |                                        |
| Certification                          | CE(IEC 62109-1)                                                                                                                |                                        |
| EMC certification level                | EN61000, C2                                                                                                                    |                                        |
| Operating temperature range            | -15°C to 55°C                                                                                                                  |                                        |
| Storage temperature range              | -25°C ~ 60°C                                                                                                                   |                                        |
| Humidity range                         | 5% to 95% (Conformal coating protection)                                                                                       |                                        |
| Noise                                  | ≤60dB                                                                                                                          |                                        |
| Heat dissipation                       | Forced air cooling, variable speed of fan                                                                                      |                                        |
| Communication interface                | USB/CAN/RS485(WiFi/GPRS)/Dry node control                                                                                      |                                        |
| Size (L*W*D)                           | 378mm*280mm*103mm                                                                                                              | 426mm*322mm*126mm                      |
| Weight (kg)                            | 6.9                                                                                                                            | 10.9                                   |

# Solar Inverter

## ISolar SMW 8KW 11KW MPPT Solar Inverter



- Dual outputs, for smart load management
- Maximum PV input current increases to 27A
- Wide PV input voltage range 90VDC ~ 450VDC
- Status indication with RGB lights
- Built-in Wi-Fi for mobile monitoring (Android/iOS App is available)
- Supports USB On-the-Go function
- Reserved communication port for BMS (RS485, CAN-BUS or RS232)
- Replaceable fan design for ease of maintenance
- Battery independent design
- Selectable high power charging current
- Compatible to Utility Mains or generator input
- Built-in anti-dust kit
- Optional DC output for DC fan, LED bulb, router and so on (only for 8K model)
- Parallel operation with 6 units



### RGB light:

Different color to present output source from PV, Grid or battery and battery charge/discharge status

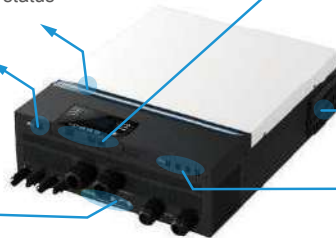


### Communication for Remote panel



### Parallel connectors:

Maximum 6 units in parallel



### Diverse communications:

USB On-the-Go function, Dry contact and BMS communication



### Anti-dust filter:

Increase product reliability in harsh environment

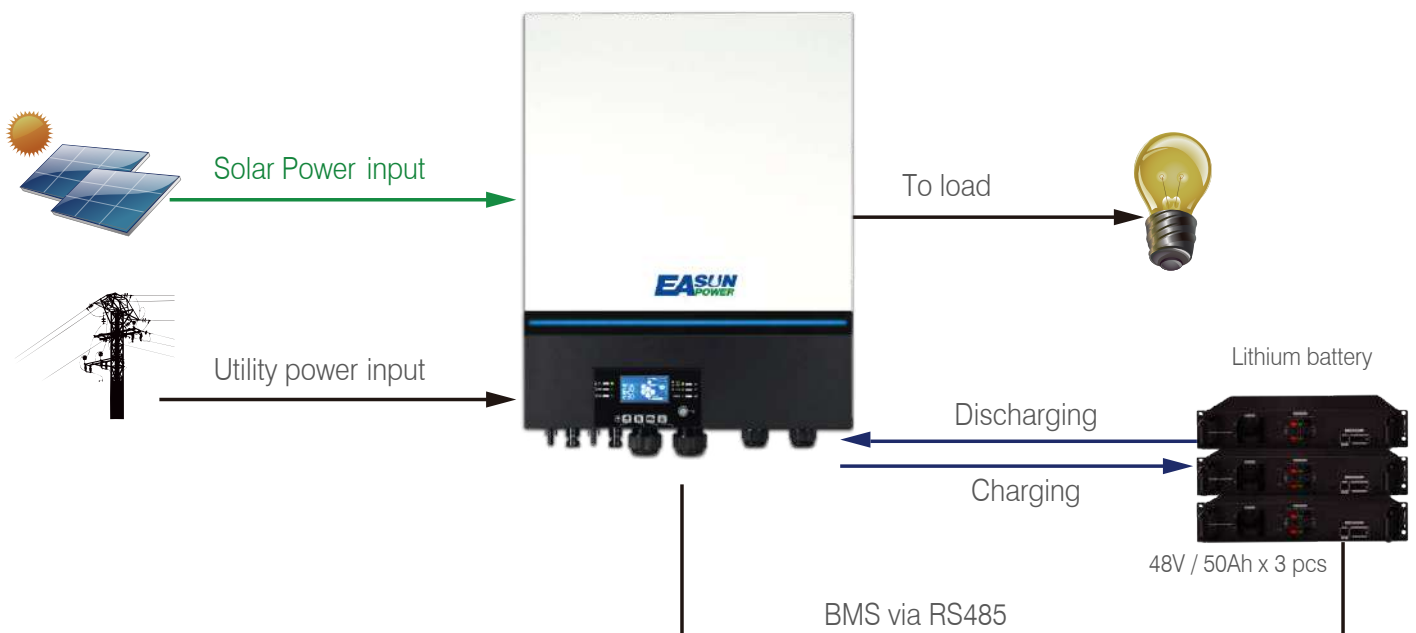


### DC output connectors:

Connect to DC fan, LED bulb or router



## System Diagram:



# ISolar SMW 8K 11K Off-Grid Inverter Selection Guide

| MODEL                                 | ISolar SMW 8KW                                                           | ISolar SMW 11KW    |
|---------------------------------------|--------------------------------------------------------------------------|--------------------|
| RATED POWER                           | 8000VA/8000W                                                             | 11000VA/11000W     |
| PARALLEL CAPABILITY                   | YES, 6 units                                                             |                    |
| INPUT                                 |                                                                          |                    |
| Voltage                               | 230 VAC                                                                  |                    |
| Selectable Voltage Range              | 170-280 VAC (For Personal Computers)<br>90-280 VAC (For Home Appliances) |                    |
| Frequency Range                       | 50 Hz/60 Hz (Auto sensing)                                               |                    |
| OUTPUT                                |                                                                          |                    |
| AC Voltage Regulation (Batt. Mode)    | 230VAC ± 5%                                                              | 230VAC ± 5%        |
| Surge Power                           | 16000VA                                                                  | 22000VA            |
| Efficiency (Peak)                     | 93%                                                                      |                    |
| Transfer Time                         | 10 ms (For Personal Computers), 20 ms (For Home Appliances)              |                    |
| Waveform                              | Pure sine wave                                                           |                    |
| Optional DC Voltage                   | 12 VDC ± 5%, 100W                                                        | N/A                |
| BATTERY                               |                                                                          |                    |
| Battery Voltage                       | 48 VDC                                                                   | 48 VDC             |
| Floating Charge Voltage               | 54 VDC                                                                   | 54 VDC             |
| Overcharge Protection                 | 66 VDC                                                                   | 63 VDC             |
| SOLAR CHARGER & AC CHARGER            |                                                                          |                    |
| Solar Charger Type                    | MPPT                                                                     |                    |
| Maximum PV Array Power                | 8000W (4000W x 2)                                                        | 11000W (5500W x 2) |
| MPPT Range @ Operating Voltage        | 90 ~ 450 VDC                                                             | 90 ~ 450 VDC       |
| Maximum PV Array Open Circuit Voltage | 500 VDC                                                                  | 500 VDC            |
| Maximum PV Input Current              | 27A x 2(MAX 40A)                                                         |                    |
| Maxmum Solar Charge Current           | 120A                                                                     | 150A               |
| Maximum AC Charge Current             | 120A                                                                     | 150A               |
| Maximum Charge Current                | 120A                                                                     | 150A               |
| PHYSICAL                              |                                                                          |                    |
| Dimension, D x W x H (mm)             | 147.4 x 432.5 x 553.6                                                    |                    |
| Net Weight (kgs)                      | 18.4                                                                     |                    |
| Communication Interface               | USB/RS232/RS485/WiFi/Dry-contact                                         |                    |
| OPERATING ENVIRONMENT                 |                                                                          |                    |
| Humidity                              | 5% to 95% Relative Humidity(Non-condensing)                              |                    |
| Operating Temperature                 | -10°C to 50°C                                                            |                    |
| Storage Temperature                   | -15°C to 60°C                                                            |                    |
| STANDARD                              |                                                                          |                    |
| Compliance Safety                     | CE                                                                       | CE                 |

Product specifications are subject to change without further notice.

# Solar Inverter

## ISolar SMW-II 8KW MPPT Solar Inverter



- Customizable status LED bar with RGB lights
- Touchable button with large 5" colored LCD
- Built-in Wi-Fi for mobile monitoring (Android/iOS App is available)
- Supports USB On-the-Go function
- Data log events stored in the inverter
- Reserved communication port for BMS (RS485, CAN-BUS or RS232)
- Replaceable fan design for ease of maintenance
- Battery independent design
- Configurable AC/PV output usage timer and prioritization
- Selectable high power charging current
- Compatible to Utility Mains or generator input
- Built-in anti-dust kit
- Built-in DC output for DC fan, LED bulb, router and so on
- Parallel operation with 6 units

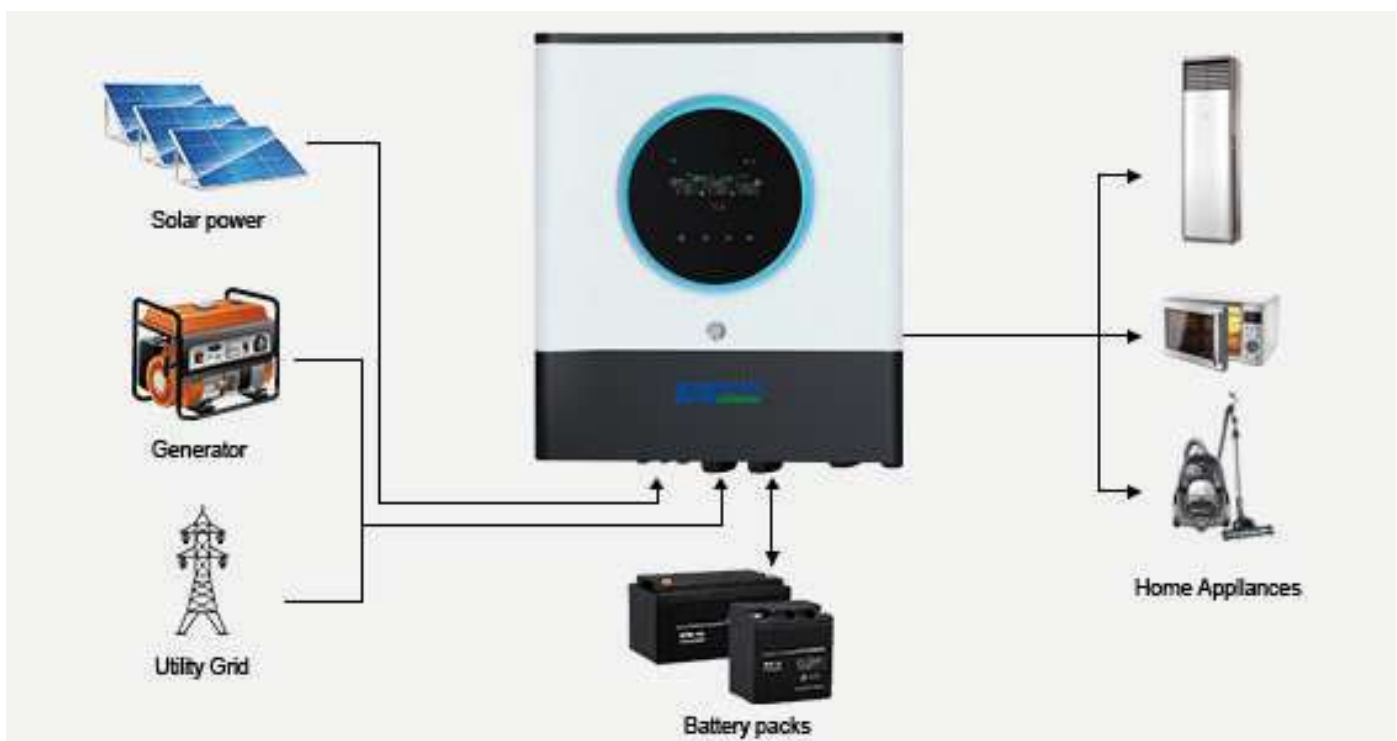
### User-programmable RGB lighting for different operation mode



### Three lighting effects

-  Cycling  
Quickly scrolling with a color of your choice in a continuous circular motion
-  Wheel  
Illuminates with twinkling lights in a color of your choice
-  Chasing  
Radiates your selected color upward from the bottom of the ring

### System Diagram



# ISolar SMW II OFF-Grid Inverter Specification

| MODEL                                 | ISolar SMW II 8000                                                      |
|---------------------------------------|-------------------------------------------------------------------------|
| Rated Power                           | 8000VA/8000W                                                            |
| Parallel Capability                   | YES, 6 units                                                            |
| INPUT                                 |                                                                         |
| Voltage                               | 230 VAC                                                                 |
| Selectable Voltage Range              | 170-280 VAC (For Personal Computers) ; 90-280 VAC (For Home Appliances) |
| Frequency Range                       | 50 Hz/60 Hz (Auto sensing)                                              |
| OUTPUT                                |                                                                         |
| AC Voltage Regulation (Batt. Mode)    | 230VAC ± 5%                                                             |
| Surge Power                           | 16000VA                                                                 |
| Efficiency (Peak)                     | 93%                                                                     |
| Transfer Time                         | 15 ms (For Personal Computers) ; 20 ms (For Home Appliances)            |
| Waveform                              | Pure sine wave                                                          |
| No Load Power Consumption             | < 70W                                                                   |
| DC Voltage                            | 12 VDC ± 5%, 100W                                                       |
| BATTERY                               |                                                                         |
| Battery Voltage                       | 48 VDC                                                                  |
| Floating Charge Voltage               | 54 VDC                                                                  |
| Overcharge Protection                 | 66 VDC                                                                  |
| SOLAR CHARGER & AC CHARGER            |                                                                         |
| Solar Charger Type                    | MPPT                                                                    |
| Maximum PV Array Power                | 8000W (4000W x 2)                                                       |
| MPPT Range @ Operating Voltage        | 90 ~ 450 VDC                                                            |
| Maximum PV Array Open Circuit Voltage | 500 VDC                                                                 |
| Maxmum Solar Charge Current           | 150A                                                                    |
| Maximum AC Charge Current             | 120A                                                                    |
| Maximum Charge Current                | 150A                                                                    |
| PHYSICAL                              |                                                                         |
| Dimension, D x W x H (mm)             | 158.4 x 502.5 x 530.8                                                   |
| Net Weight (kgs)                      | 20                                                                      |
| Communication Interface               | USB/RS232/RS485/WiFi/Dry-contact                                        |
| OPERATING ENVIRONMENT                 |                                                                         |
| Humidity                              | 5% to 95% Relative Humidity(Non-condensing)                             |
| Operating Temperature                 | -10°C to 50°C                                                           |
| Storage Temperature                   | -15°C to 60°C                                                           |
| STANDARD                              |                                                                         |
| Compliance Safety                     | CE                                                                      |

Product specifications are subject to change without further notice.

# Solar Inverter

## ISolar SWP Off-Grid Inverter MPPT Solar Inverter



- IP65 waterproof and dustproof makes the inverter available for various working conditions
- Built-in WiFi for mobile monitoring (APP is available)
- Reserved communication port for BMS (RS485, CAN-BUS or RS232)
- Replaceable fan design for ease of maintenance
- Battery independent design
- Configurable AC/PV output usage timer and prioritization
- Selectable high power charging current
- Selectable input voltage range for home appliances and personal computers
- Compatible to Utility Mains or generator input
- Parallel operation up to 6 units

This hybrid PV inverter can provide power to connected loads by utilizing PV power, utility power and battery power.

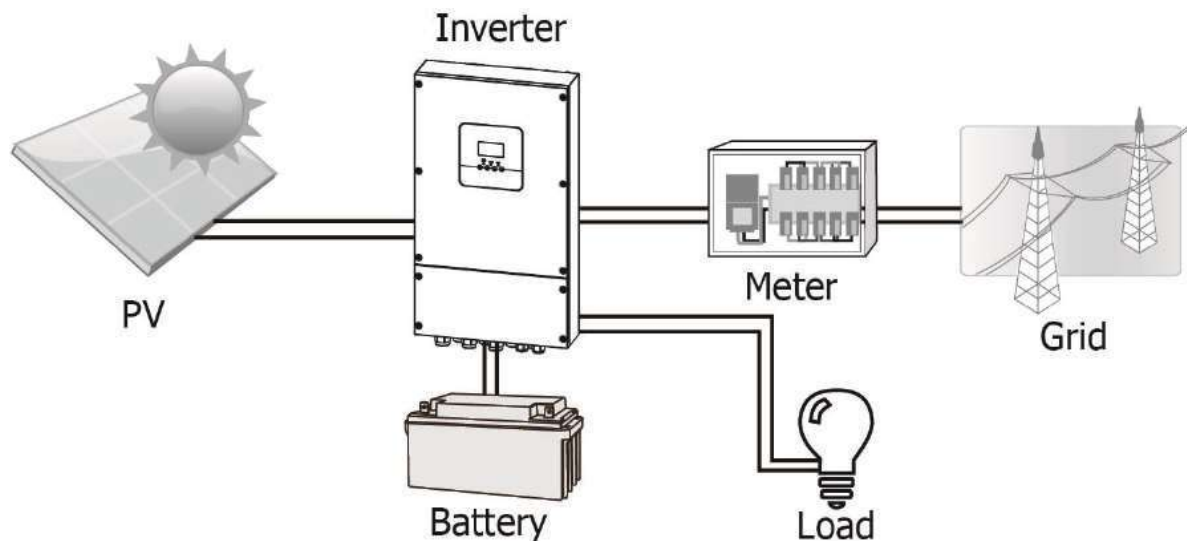


**Figure 1 Basic hybrid PV System Overview**

Depending on different power situations, this hybrid inverter is designed to generate continuous power from PV solar modules (solar panels), battery, and the utility. When MPP input voltage of PV modules is within acceptable range (see specification for the details), this inverter is able to generate power to feed the grid (utility) and charge battery. **Never connect the positive and negative terminals of the solar panel to the ground.** See Figure 1 for a simple diagram of a typical solar system with this hybrid inverter.

# ISolar SWP OFF-Grid Inverter Specification

|                                       |                                                                          |
|---------------------------------------|--------------------------------------------------------------------------|
| MODEL                                 | ISolar SWP 8000                                                          |
| RATED POWER                           | 8000VA/8000W                                                             |
| PARALLEL CAPABILITY                   | Yes, up to 6 units                                                       |
| INPUT                                 |                                                                          |
| Voltage                               | 230 VAC                                                                  |
| Selectable Voltage Range              | 170-280 VAC (For Personal Computers)<br>90-280 VAC (For Home Appliances) |
| Frequency Range                       | 50 Hz/60 Hz (Auto sensing)                                               |
| OUTPUT                                |                                                                          |
| AC Voltage Regulation (Batt. Mode)    | 230VAC ± 5%                                                              |
| Surge Power                           | 16000VA                                                                  |
| Efficiency (Peak)                     | 90% ~ 93%                                                                |
| Transfer Time                         | 15 ms (For Personal Computers) ; 20 ms (For Home Appliances)             |
| Waveform                              | Pure sine wave                                                           |
| No Load Power Consumption             | < 70W                                                                    |
| BATTERY                               |                                                                          |
| Battery Voltage                       | 48 VDC                                                                   |
| Floating Charge Voltage               | 54 VDC                                                                   |
| Overcharge Protection                 | 66 VDC                                                                   |
| SOLAR CHARGER & AC CHARGER            |                                                                          |
| Solar Charger Type                    | MPPT                                                                     |
| Maximum PV Array Power                | 8000W (4000W x 2)                                                        |
| MPPT Range @ Operating Voltage        | 90 ~ 450 VDC                                                             |
| Maximum PV Array Open Circuit Voltage | 500 VDC                                                                  |
| Maxmum Solar Charge Current           | 120 A                                                                    |
| Maximum AC Charge Current             | 120 A                                                                    |
| Maximum Charge Current                | 120 A                                                                    |
| PHYSICAL                              |                                                                          |
| Dimension, D x W x H (mm)             | 200 x 435 x 665                                                          |
| Net Weight (kgs)                      | 33                                                                       |
| Communication Interface               | USB / RS232 / RS485 / Dry-contact / WiFi                                 |
| OPERATING ENVIRONMENT                 |                                                                          |
| Humidity                              | 5% to 95% Relative Humidity(Non-condensing)                              |
| Operating Temperature                 | -10°C to 50°C                                                            |
| Storage Temperature                   | -15°C to 60°C                                                            |
| STANDARD                              |                                                                          |
| Compliance Safety                     | CE                                                                       |

# Solar Inverter

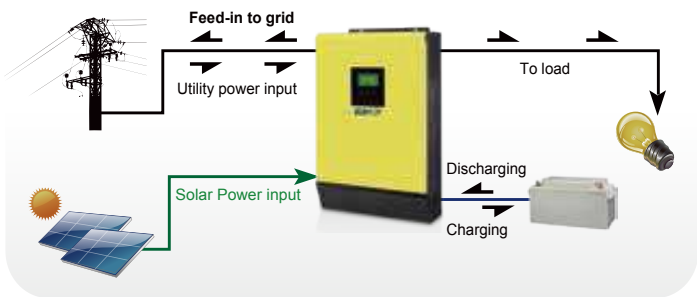
## IGrid SV II SERIES Hybrid Solar Inverter



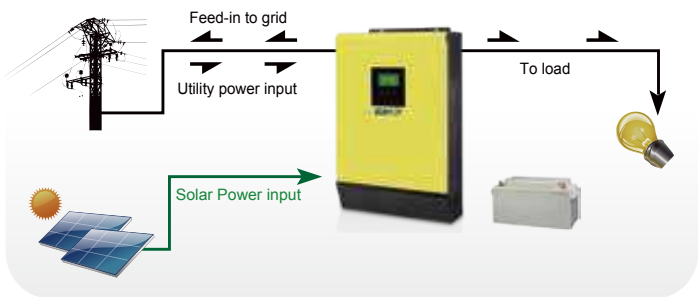
- Pure sine wave inverter
- Self-consumption and Feed-in to the grid
- Programmable supply priority for PV, Battery or Grid
- User-adjustable charging current and voltage
- Programmable multiple operation modes: Grid tie, off-grid and grid-tie with backup
- Monitoring software for real-time status display and control
- Parallel operation up to 9 units only for 2KW/3KW 5KW/6KW models
- Battery Independent system
- Dual outputs selected as either programmable output or generator input

### Hybrid operation

● With battery connected



● Without battery connected



### Interface introduction

## IGrid SV II On-Grid Inverter With Energy Storage Selection Guide

| MODEL                                 | IGrid SV II 1.5KW                               | IGrid SV II 2KW  | IGrid SV II 3KW   | IGrid SV II 5KW   |
|---------------------------------------|-------------------------------------------------|------------------|-------------------|-------------------|
| Max. PV Array Power                   | 2000W                                           | 3000W            | 4000W             | 5000W             |
| Rated Output Power                    | 1500W                                           | 2000W            | 3000W             | 5000W             |
| Maximum PV Array Open Circuit Voltage | 400 VDC                                         | 450 VDC          | 450 VDC           | 450 VDC           |
| MPPT Range @ Operating Voltage        | 120 VDC ~ 380 VDC                               | 90 VDC ~ 430 VDC | 120 VDC ~ 430 VDC | 120 VDC ~ 430 VDC |
| MPP Tracker Number                    | 1                                               | 1                | 1                 | 1                 |
| GRID-TIE OPER                         |                                                 |                  |                   |                   |
| GRID OUTPUT (AC)                      |                                                 |                  |                   |                   |
| Nominal Output Voltage                | 220/230/240 VAC                                 |                  |                   |                   |
| Output Voltage Range                  | 184 - 264.5 VAC or 195.5 - 253 VAC (Selectable) |                  |                   |                   |
| Nominal Output Current                | 6.5A                                            | 8.7A             | 13A               | 21.7A             |
| Power Factor                          | > 0.99                                          |                  |                   |                   |
| EFFICIENCY                            |                                                 |                  |                   |                   |
| Maximum Conversion Efficiency (DC/AC) | 95%                                             | 95%              | 95%               | 95%               |
| OFF-GRID, HYBRID OPER                 |                                                 |                  |                   |                   |
| GRID INPUT                            |                                                 |                  |                   |                   |
| Acceptable Input Voltage Range        | 90 - 280 VAC or 170 - 280 VAC                   |                  |                   |                   |
| Frequency Range                       | 50 Hz/60 Hz (Auto sensing)                      |                  |                   |                   |
| Maximum AC Input Current              | 30A                                             | 30A              | 40A               | 40A               |
| BATTERY MODE OUTPUT (AC)              |                                                 |                  |                   |                   |
| Nominal Output Voltage                | 220/230/240 VAC                                 |                  |                   |                   |
| Output Waveform                       | Pure sine wave                                  |                  |                   |                   |
| Efficiency (DC to AC)                 | 93%                                             |                  |                   |                   |
| BATTERY & CHARGER                     |                                                 |                  |                   |                   |
| Nominal DC Voltage                    | 48 VDC                                          |                  |                   |                   |
| Maximum Solar Charge Current          | 30 A                                            | 60 A             | 60 A              | 80 A              |
| Maximum AC Charge Current             | 40 A                                            | 60 A             | 60 A              | 80 A              |
| Maximum Charge Current                | 40 A                                            | 60 A             | 60 A              | 80 A              |
| GENERAL                               |                                                 |                  |                   |                   |
| PHYSICAL                              |                                                 |                  |                   |                   |
| Dimension, D x W x H (mm)             | 100 x 300 x 440                                 | 120 x 295 x 468  | 120 x 295 x 468   | 120 x 295 x 468   |
| Net Weight (kgs)                      | 8                                               | 11               | 11                | 12                |
| INTERFACE                             |                                                 |                  |                   |                   |
| Parallel Function                     | N/A                                             | Yes, 9 units     | Yes, 9 units      | Yes, 9 units      |
| Communication Ports                   | USB, RS-232 and dry contact                     |                  |                   |                   |
| ENVIRONMENT                           |                                                 |                  |                   |                   |
| Humidity                              | 0 ~ 90% RH (Non-condensing)                     |                  |                   |                   |
| Operating Temperature                 | -10°C to 50°C                                   |                  |                   |                   |

Product specifications are subject to change without further notice.

# Solar Inverter

## IGrid SV IV 3.6KW 5.6KW Hybrid Solar Inverter



- Customizable status LED ring with RGB lights
- Touchable button with 4.3" colored LCD
- Supports USB On-the-Go function
- Data log events stored in the inverter
- Self-consumption and Feed-in to the grid
- Programmable supply priority for PV, Battery or Grid
- User-adjustable charging current and voltage
- Programmable multiple operation modes: Grid-tie, off-grid and grid-tie with backup
- Built-in Wi-Fi for mobile monitoring (App is available)
- Reserved communication port for BMS
- Parallel operation up to 9 units

## 4 System Diagram for Optional

### Operation with battery connected



### Operation without battery connected



# IGrid SV IV On-Grid Inverter with Energy Storage Selection Guide

| MODEL                                          | IGrid SV-IV 3.6KW                               |  | IGrid SV-IV 5.6KW |  |
|------------------------------------------------|-------------------------------------------------|--|-------------------|--|
| PHASE                                          | 1-phase in / 1-phase out                        |  |                   |  |
| MAXIMUM PV INPUT POWER                         | 5000W                                           |  | 6000W             |  |
| RATED OUTPUT POWER                             | 3600W                                           |  | 5600W             |  |
| MAXIMUM CHARGING POWER                         | 5000W                                           |  | 6000W             |  |
| GRID-TIE OPERATION                             |                                                 |  |                   |  |
| PV INPUT (DC)                                  |                                                 |  |                   |  |
| Nominal DC Voltage / Maximum DC Voltage        | 360 VDC / 500 VDC                               |  | 360 VDC / 450 VDC |  |
| Start-up Voltage / Initial Feeding Voltage     | 110VDC / 120 VDC                                |  | 110VDC / 120 VDC  |  |
| MPP Voltage Range                              | 120 VDC ~ 430 VDC                               |  | 120 VDC ~ 430 VDC |  |
| Number of MPP Trackers / Maximum Input Current | 1 / 18 A                                        |  | 1 / 27 A          |  |
| GRID OUTPUT (AC)                               |                                                 |  |                   |  |
| Nominal Output Voltage                         | 220/230/240 VAC                                 |  |                   |  |
| Output Voltage Range                           | 184 - 264.5 VAC or 195.5 - 253 VAC (Selectable) |  |                   |  |
| Nominal Output Current                         | 15.6A                                           |  | 24.3A             |  |
| Power Factor                                   | > 0.9                                           |  |                   |  |
| EFFICIENCY                                     |                                                 |  |                   |  |
| Maximum Conversion Efficiency (DC/AC)          | 96%                                             |  | 96%               |  |
| OFF-GRID OPERATION                             |                                                 |  |                   |  |
| AC INPUT                                       |                                                 |  |                   |  |
| AC Start-up Voltage / Auto Restart Voltage     | 120 - 140 VAC / 180 VAC                         |  |                   |  |
| Acceptable Input Voltage Range                 | 90 - 280 VAC or 170 - 280 VAC                   |  |                   |  |
| Maximum AC Input Current                       | 40 A                                            |  | 40 A              |  |
| PV INPUT (DC)                                  |                                                 |  |                   |  |
| Maximum DC Voltage                             | 500 VDC                                         |  | 450 VDC           |  |
| MPP Voltage Range                              | 120 VDC ~ 430 VDC                               |  | 120 VDC ~ 430 VDC |  |
| Number of MPP Trackers / Maximum Input Current | 1 / 18 A                                        |  | 1 / 27 A          |  |
| BATTERY MODE OUTPUT (AC)                       |                                                 |  |                   |  |
| Nominal Output Voltage                         | 220/230/240 VAC                                 |  |                   |  |
| Output Waveform                                | Pure sinewave                                   |  |                   |  |
| Efficiency (DC to AC)                          | 93%                                             |  | 93%               |  |
| HYBRID OPERATION                               |                                                 |  |                   |  |
| PV INPUT (DC)                                  |                                                 |  |                   |  |
| Nominal DC Voltage / Maximum DC Voltage        | 360 VDC / 500 VDC                               |  | 360 VDC / 450 VDC |  |
| Start-up Voltage / Initial Feeding Voltage     | 110VDC / 120 VDC                                |  | 110VDC / 120 VDC  |  |
| MPP Voltage Range                              | 120 VDC ~ 430 VDC                               |  | 120 VDC ~ 430 VDC |  |
| Number of MPP Trackers / Maximum Input Current | 1 / 18 A                                        |  | 1 / 27 A          |  |
| GRID OUTPUT (AC)                               |                                                 |  |                   |  |
| Nominal Output Voltage                         | 220/230/240 VAC                                 |  |                   |  |
| Output Voltage Range                           | 184 - 264.5 VAC or 195.5 - 253 VAC (Selectable) |  |                   |  |
| Nominal Output Current                         | 15.6A                                           |  | 24.3A             |  |
| AC INPUT                                       |                                                 |  |                   |  |
| AC Start-up Voltage / Auto Restart Voltage     | 120 - 140 VAC / 180 VAC                         |  |                   |  |
| Acceptable Input Voltage Range                 | 90 - 280 VAC or 170 - 280 VAC                   |  |                   |  |
| Maximum AC Input Current                       | 40A                                             |  | 40A               |  |
| BATTERY MODE OUTPUT (AC)                       |                                                 |  |                   |  |
| Nominal Output Voltage                         | 220/230/240 VAC                                 |  |                   |  |
| Efficiency (DC to AC)                          | 93%                                             |  | 93%               |  |
| BATTERY & CHARGER                              |                                                 |  |                   |  |
| Nominal DC Voltage                             | 48 VDC                                          |  | 48 VDC            |  |
| Maximum Solar Charging Current                 | 100A                                            |  | 120A              |  |
| Maximum AC Charging Current                    | 100A                                            |  | 120A              |  |
| Maximum Charging Current                       | 100A                                            |  | 120A              |  |
| GENERAL                                        |                                                 |  |                   |  |
| PHYSICAL                                       |                                                 |  |                   |  |
| Dimension, D x W x H (mm)                      | 140 x 295 x 468                                 |  |                   |  |
| Net Weight (kgs)                               | 11                                              |  | 12                |  |
| INTERACE                                       |                                                 |  |                   |  |
| Parallel Function                              | Yes, 9 units                                    |  |                   |  |
| Communication Port                             | USB/RS232/RS485/Wifi/Dry-contact                |  |                   |  |
| ENVIRONMENT                                    |                                                 |  |                   |  |
| Humidity                                       | 0 ~ 90% RH (Non-condensing)                     |  |                   |  |
| Operating Temperature                          | -10 to 50°C                                     |  |                   |  |

Product specifications are subject to change without further notice.

## IGrid SMP 5KW Hybrid Solar Inverter



- Max. can be 9 pcs in parallel with optional kit
- Efficiently work with or without battery
- MPPT Solar Charge Controller up to 5000W solar panel
- Built - in Wifi for mobile monitoring (Requires APP)
- Compatible with (Li-ion, LiFePo4 and etc.) batteries with BMS
- Battery Equalization

### 4 System Diagram for Optional

#### Operation with battery connected



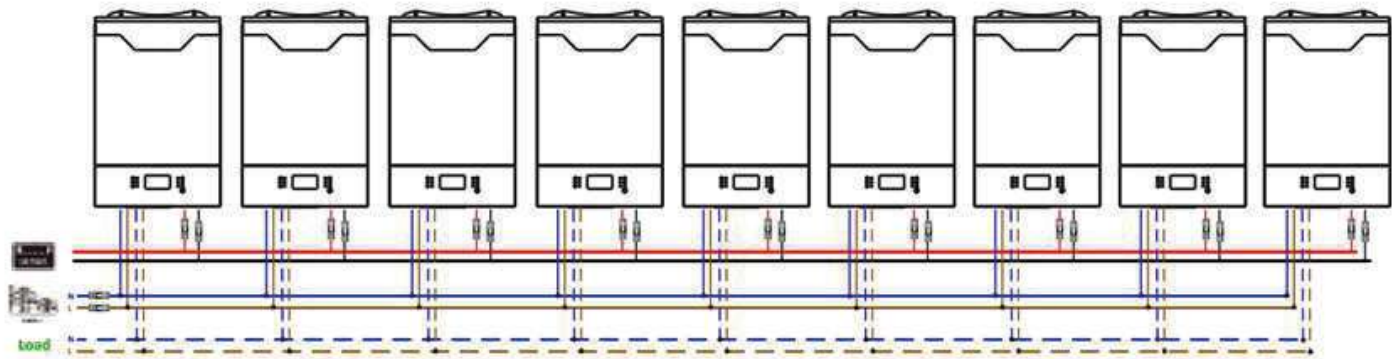
#### Operation without battery connected



# Parallel Operation in Single phase

## Nine inverters in parallel

### Power Conection



## IGrid SMP Technical parameters

| Model                                                                | SMP 5KW                                                      |
|----------------------------------------------------------------------|--------------------------------------------------------------|
| Rated Power                                                          | 5000VA/5000W                                                 |
| INPUT                                                                |                                                              |
| Voltage                                                              | 230VAC                                                       |
| Voltage Range                                                        | 176-280 VAC at 100% load                                     |
| Voltage Range                                                        | 110-280 VAC at 50% load                                      |
| Frequency Range                                                      | 50Hz/60Hz(Auto sensing)                                      |
| OUTPUT                                                               |                                                              |
| AC Voltage Regulation(Batt.Mode)                                     | 230VAC±3%                                                    |
| Surge Power                                                          | 10400VA for 5 sec                                            |
| Efficiency(Peak)                                                     | >95% ( Rated R load, battery full charged                    |
| Transfer Time                                                        | 10ms typical (UPS)                                           |
| Transfer Time                                                        | 20ms typical (Appliances)                                    |
| Waveform                                                             | Pure sine wave                                               |
| BATTERY                                                              |                                                              |
| Battery Voltage                                                      | 48 VDC                                                       |
| Floating Charge Voltage                                              | 54 VDC                                                       |
| Overcharge Protection                                                | 64 VDC                                                       |
| SOLAR CHARGER & AC CHARGER                                           |                                                              |
| Solar Charger Type                                                   | MPPT                                                         |
| Maximum PV Array Open Circuit Voltage                                | 500VDC                                                       |
| Maximum PV Array Power                                               | 5000W                                                        |
| MPP Range@ Operating Voltage                                         | 120-450VDC                                                   |
| Maxmum Solar Charge Current                                          | 80A                                                          |
| Maximum AC Charge Current                                            | 60A                                                          |
| PHYSICAL                                                             |                                                              |
| Products Dimension,D X W X H (mm)                                    | 456*303*147                                                  |
| Product Net Weight(kgs)                                              | 12                                                           |
| Packing Dimension,D X W X H (mm)                                     | 530*377*217,1PC/CTN                                          |
| Product Net Weight(kgs)                                              | 13.5                                                         |
| Communication Interface                                              | Removable OTG USB/RS232/RS458/BLE/Dry-contact,BMS interface, |
| OPERATING ENVIRONMENT                                                |                                                              |
| Humidity                                                             | 5% to 95% Relative Humidity(Non-condensing)                  |
| Operating Temperature                                                | -10℃ to 50℃                                                  |
| Storage Temperature                                                  | -15℃ to 60℃                                                  |
| *Product specifications are subject to change without further notice |                                                              |

# Solar Inverter

## IGrid VE II 3KW 5.5KW Hybrid Solar Inverter



Dust Proof



- Touch screen display
- PV and utility power the load at same time (can setting)
- Output power factor PF=1.0
- On&Off Grid with energy storage
- Energy generated record, load record, history information and fault record
- Structure with dust filter
- AC charging start and stop time setting
- External Wi-Fi device optional
- Parallel operation up to 9 units
- Connected with battery optional
- Wide PV input range 120-450VDC
- Independent CPU
- MAX PV Array power 5000W
- Solar and Utility supply power to the load When solar power is not sufficient to load
- The CT sensor will monitor the power consumption of the system and will make sure no excess PV power is delivered to the Grid



Battery Optional



1kW=1kVA



Touch Screen



On&Off Grid



Wi-Fi Function



AC input  
AC output  
PV input  
ON/OFF switch  
DC input  
Parallel connection terminal  
CAN  
Dry contactor  
CT  
Wifi  
RS232  
USB

### Product Snapshot

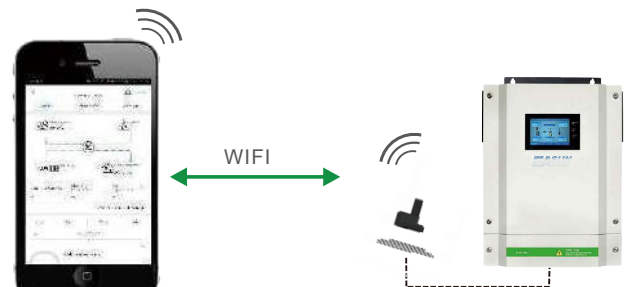
Model: 3-5.5kW

Nominal Voltage: 220/230/240VAC

Frequency Range: 50Hz/60Hz



Touch Display Screen

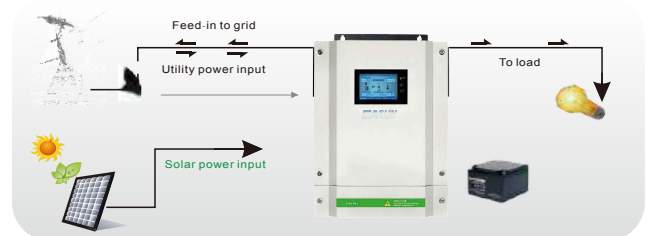


### Hybrid Operation

#### With battery connected

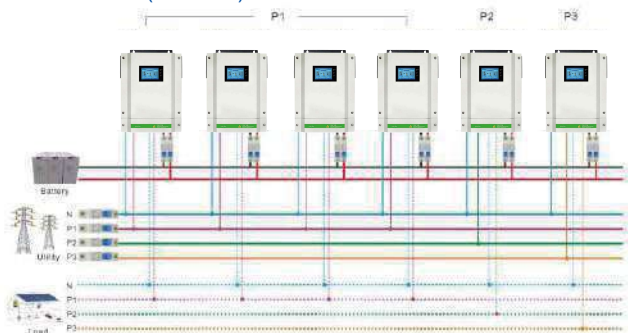
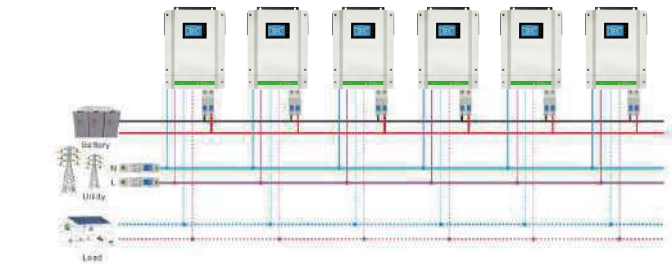


#### Without battery connected



■Single phase output up to 49.5KW using 9 units

■ Three phase output using either 3 units(16.5KW)or max 9 units(49.5KW)



# IGrid VE II Series

## Wall Mounted Integrated Solar Power Inverter Technical Specification

### Built-in MPPT Solar Controller

| MODEL                          | IGrid VE II 3K 24V                       |  | IGrid VE II 5.5K 48V |  |
|--------------------------------|------------------------------------------|--|----------------------|--|
| Max PV Array Power             | 5500W                                    |  |                      |  |
| Rated Output Power             | 3000W                                    |  | 5500W                |  |
| MPPT Range @ Operating Voltage | 120-450VDC                               |  |                      |  |
| GRID-TIE OPERATION             |                                          |  |                      |  |
| GRID OUTPUT (AC)               |                                          |  |                      |  |
| Nominal Output Voltage         | 220/230/240VAC                           |  |                      |  |
| Output Voltage Range           | 184-265VAC                               |  |                      |  |
| Nominal Output Current         | 13.6A/13.0A/12.5A                        |  | 20.5A/19.6A/18.8A    |  |
| Efficiency                     | Up to 93%                                |  |                      |  |
| OFF-GRID, HYBRID OPERATION     |                                          |  |                      |  |
| GRID INPUT                     |                                          |  |                      |  |
| Acceptable Input Voltage Range | 120-280VAC or 170-280 VAC                |  |                      |  |
| Frequency Range                | 50Hz/60Hz (Auto sensing)                 |  |                      |  |
| BATTERY MODE OUTPUT (AC)       |                                          |  |                      |  |
| Nominal Output Voltage         | 220/230/240VAC                           |  |                      |  |
| Output Wave Form               | Pure sine wave                           |  |                      |  |
| BATTERY & CHARGER              |                                          |  |                      |  |
| Nominal DC Voltage             | 24VDC                                    |  | 48VDC                |  |
| Maximum AC Charge Current      | 60A                                      |  |                      |  |
| Maximum Charge Current(AC+PV)  | 90A                                      |  |                      |  |
| Emergency output power         |                                          |  |                      |  |
| Maximum output Power           | 3000W                                    |  | 5500W                |  |
| Surge Power                    | 6000W                                    |  | 11000W               |  |
| Automatic Transfer Time        | <10ms                                    |  |                      |  |
| GENERAL                        |                                          |  |                      |  |
| INTERFACE                      |                                          |  |                      |  |
| Parallel Function              | Yes                                      |  |                      |  |
| Communication                  | USB or RS232,WIFI, Generator dry-Contact |  |                      |  |
| ENVIRONMENT                    |                                          |  |                      |  |
| Humidity                       | 0~90% RH (No Condensing)                 |  |                      |  |
| Operating Temperature          | 0 to 50℃                                 |  |                      |  |
| Net Weight(KG)                 | 11.75                                    |  | 11.9                 |  |
| Gross Weight(KG)               | 12.75                                    |  | 13.1                 |  |
| Dimension (W x D x H)mm        | 345x476x133.2                            |  |                      |  |

## IGrid: On-Grid Inverter with Energy Storage

### Innovative and Cost-effective Power Solution



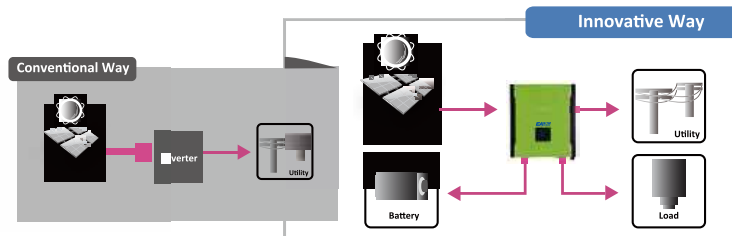
- Pure sine wave output
- Self-consumption and Feed-in to the grid
- Programmable supply priority for PV, Battery or Grid
- User-adjustable battery charging current suits different types of batteries
- Programmable multiple operation modes: Grid-tie, off-grid and grid-tie with backup
- Built-in timer for various mode of on/off operation
- Multiple communication for USB, RS-232, Modbus and SNMP
- Monitoring software for real-time status display and control
- Parallel operation up to 6 units for 5KW and 10KW

IGrid is a flexible and intelligent hybrid inverter which utilizes solar power, AC utility, and battery power source to supply continuous power. It's a simple and smart solar power storage system for home users to either store energy into a battery and wait for night-time usage or use for self-consumption first depending on demands. Priority for power source can be programmed and set up through smart software. During night time or power failure, it will automatically extract power from the battery. In this way, it will reduce dependence on the utility.



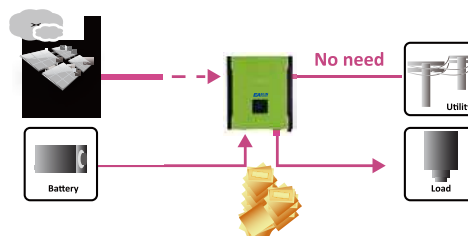
#### ■ Feed-in is not only choice

In comparison with conventional grid-tie inverter, InfiniSolar is able to not only feed-in power to the grid but also store solar power to the battery for future usage and directly power to the loads.



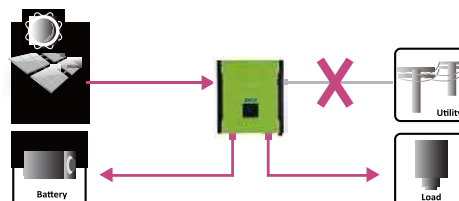
#### ■ Save money by discharging battery for self-consumption first

IGrid can save money by using battery energy first when PV energy is low. Until battery energy is low, IGrid will extract AC power from the grid.



#### ■ Power backup when AC failed

IGrid can operate as an off-grid inverter to provide continuous power even without the grid. It's a perfect power solution for remote regions or temporary AC power source such as camping or night market.



# IGrid On-grid Inverter with Energy Storage Selection Guide

| MODEL                                          | IGrid SS 2KW                                     | IGrid SS 3KW Plus       | IGrid SS 5KW Plus                   | IGrid TT 10KW                               |
|------------------------------------------------|--------------------------------------------------|-------------------------|-------------------------------------|---------------------------------------------|
| PHASE                                          | 1-phase in / 1-phase out                         |                         |                                     | 3-phase in / 3-phase out                    |
| MAXIMUM PV INPUT POWER                         | 2250 W                                           | 4500 W                  | 10000 W                             | 14850 W                                     |
| RATED OUTPUT POWER                             | 2000 W                                           | 3000 W                  | 5000 W                              | 10000 W                                     |
| MAXIMUM CHARGING POWER                         | 1200 W                                           |                         | 4800 W                              | 9600 W                                      |
| GRID-TIE OPERATION                             |                                                  |                         |                                     |                                             |
| PV INPUT (DC)                                  |                                                  |                         |                                     |                                             |
| Nominal DC Voltage / Maximum DC Voltage        | 300 VDC / 350 VDC                                | 360 VDC / 500 VDC       | 720 VDC / 900 VDC                   | 720 VDC / 900 VDC                           |
| Start-up Voltage / Initial Feeding Voltage     | 80 VDC / 120 VDC                                 | 116 VDC / 150 VDC       | 225 VDC / 250 VDC                   | 320 VDC / 350 VDC                           |
| MPP Voltage Range                              | 120 VDC ~ 320 VDC                                | 250 VDC ~ 450 VDC       | 250 VDC ~ 850 VDC                   | 400 VDC ~ 800 VDC                           |
| Number of MPP Trackers / Maximum Input Current | 1 / 1 x 15 A                                     | 1 / 1 x 18 A            | 2 / 2 x 10 A                        | 2 / 2 x 18.6A                               |
| GRID OUTPUT (AC)                               |                                                  |                         |                                     |                                             |
| Nominal Output Voltage                         | 101/110/120/127 VAC                              | 208/220/230/240 VAC     |                                     | 230 VAC (P-N) / 400 VAC (P-P)               |
| Output Voltage Range                           | 88 - 127 VAC*                                    | 184 - 265 VAC*          |                                     | 184 - 265 VAC* per phase                    |
| Nominal Output Current                         | 18 A                                             | 13 A                    | 21 A                                | 14.5A per phase                             |
| Power Factor                                   | > 0.99                                           |                         |                                     |                                             |
| EFFICIENCY                                     |                                                  |                         |                                     |                                             |
| Maximum Conversion Efficiency (DC/AC)          | 95%                                              | 96%                     |                                     |                                             |
| European Efficiency@ Vnominal                  | 94%                                              | 95%                     |                                     |                                             |
| OFF-GRID OPERATION                             |                                                  |                         |                                     |                                             |
| AC INPUT                                       |                                                  |                         |                                     |                                             |
| AC Start-up Voltage/Auto Restart Voltage       | 60 - 70 VAC / 85 VAC                             | 120 - 140 VAC / 180 VAC |                                     | 120 - 140 VAC per phase / 180 VAC per phase |
| Acceptable Input Voltage Range                 | 80 - 130 VAC                                     | 170 - 280 VAC           |                                     | 170 - 280 VAC per phase                     |
| Maximum AC Input Current                       | 30 A                                             |                         | 40 A                                |                                             |
| PV INPUT (DC)                                  |                                                  |                         |                                     |                                             |
| Maximum DC Voltage                             | 350 VDC                                          | 500 VDC                 | 900 VDC                             | 900 VDC                                     |
| MPP Voltage Range                              | 150 VDC ~ 320 VDC                                | 250 VDC ~ 450 VDC       | 250 VDC ~ 850 VDC                   | 400 VDC ~ 800 VDC                           |
| Number of MPP Trackers / Maximum Input Current | 1 / 1 x 15 A                                     | 1 / 1 x 18 A            | 2 / 2 x 10A                         | 2 / 2 x 18.6A                               |
| BATTERY MODE OUTPUT (AC)                       |                                                  |                         |                                     |                                             |
| Nominal Output Voltage                         | 101/110/120/127 VAC                              | 202/208/220/230/240 VAC | 202/208/220/230/240 VAC             | 230 VAC (P-N) / 400 VAC (P-P)               |
| Output Waveform                                | Pure Sinewave                                    |                         |                                     |                                             |
| Efficiency (DC to AC)                          | 90%                                              | 93%                     |                                     | 91%                                         |
| HYBRID OPERATION                               |                                                  |                         |                                     |                                             |
| PV INPUT (DC)                                  |                                                  |                         |                                     |                                             |
| Nominal DC Voltage / Maximum DC Voltage        | 300 VDC / 350 VDC                                | 360 VDC / 500 VDC       | 720 VDC / 900 VDC                   | 720 VDC / 900 VDC                           |
| Start-up Voltage / Initial Feeding Voltage     | 80 VDC / 120 VDC                                 | 116 VDC / 150 VDC       | 225 VDC / 250 VDC                   | 320 VDC / 350 VDC                           |
| MPP Voltage Range                              | 150 VDC ~ 320 VDC                                | 250 VDC ~ 450 VDC       | 250 VDC ~ 850 VDC                   | 400 VDC ~ 800 VDC                           |
| Number of MPP Trackers / Maximum Input Current | 1 / 1 x 15 A                                     | 1 / 1 x 18 A            | 2 / 2 x 10A                         | 2 / 2 x 18.6A                               |
| GRID OUTPUT (AC)                               |                                                  |                         |                                     |                                             |
| Nominal Output Voltage                         | 101/110/120/127 VAC                              | 202/208/220/230/240 VAC | 202/208/220/230/240 VAC             | 230 VAC (P-N) / 400 VAC (P-P)               |
| Output Voltage Range                           | 88-127 VAC*                                      | 184 - 264.5 VAC*        |                                     | 184 - 264.5 VAC* per phase                  |
| Nominal Output Current                         | 18 A                                             | 13 A                    | 21 A                                | 14.5 A per phase                            |
| AC INPUT                                       |                                                  |                         |                                     |                                             |
| AC Start-up Voltage / Auto Restart Voltage     | 60 - 70 VAC / 85 VAC                             | 120 - 140 VAC / 180 VAC |                                     | 120 - 140 VAC per phase / 180 VAC per phase |
| Acceptable Input Voltage Range                 | 80 - 130 VAC                                     | 170 - 280 VAC           |                                     | 170 - 280 VAC per phase                     |
| Maximum AC Input Current                       | 30 A                                             |                         | 40 A                                |                                             |
| BATTERY MODE OUTPUT (AC)                       |                                                  |                         |                                     |                                             |
| Nominal Output Voltage                         | 101/110/120/127 VAC                              | 202/208/220/230/240 VAC | 202/208/220/230/240 VAC             | 230 VAC (P-N) / 400 VAC (P-P)               |
| Efficiency (DC to AC)                          | 90%                                              | 93%                     |                                     | 91%                                         |
| BATTERY & CHARGER                              |                                                  |                         |                                     |                                             |
| Nominal DC Voltage                             | 48 VDC                                           |                         |                                     |                                             |
| Maximum Charging Current                       | Default 25A, 5A - 25A (Adjustable)               |                         | Default 60A, 5A - 100A (Adjustable) | Default 60A, 10A - 200A (Adjustable)        |
| GENERAL                                        |                                                  |                         |                                     |                                             |
| PHYSICAL                                       |                                                  |                         |                                     |                                             |
| Dimension, D X W X H (mm)                      | 107 x 438 x 480                                  |                         | 204.2 x 460 x 600                   | 167.5 x 500 x 622                           |
| Net Weight (kgs)                               | 15.5                                             |                         | 29                                  | 45                                          |
| INTERFACE                                      |                                                  |                         |                                     |                                             |
| Communication Port                             | RS-232/USB                                       |                         | RS-232/USB and CAN Interface        |                                             |
| Intelligent Slot                               | Optional SNMP, Modbus and AS-400 cards available |                         |                                     |                                             |
| ENVIRONMENT                                    |                                                  |                         |                                     |                                             |
| Humidity                                       | 0 ~ 90% RH (No condensing)                       |                         |                                     |                                             |
| Operating Temperature                          | 0 to 40°C                                        |                         | -10 to 55°C                         |                                             |
| Altitude                                       | 0 ~ 1000 m**                                     |                         |                                     |                                             |

\*These figures may vary depending on different AC voltage and country requirements.

\*\*Power derating 1% every 100 m when altitude is over 1000m.

Product specifications are subject to change without further notice.



AS4777, AS/NZS3100, NRS-097-2-1 (only for IGrid SS 3KW Plus)

# Solar Inverter

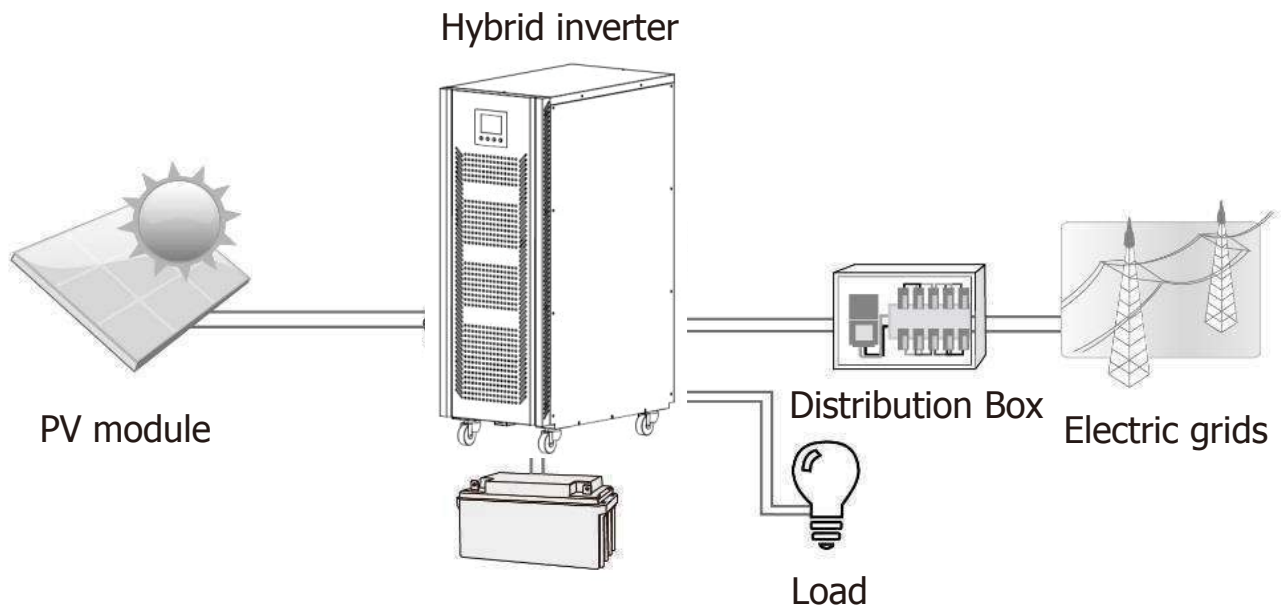
## IGrid TX/TX-PA Solar inverter lithium battery



- Pure sine wave output
- Self-consumption and Feed-in to the grid
- Programmable supply priority for PV, Battery or Grid
- True galvanic isolation transformer design
- User-adjustable charging current
- Programmable multiple operation modes: Grid-tie, off-grid and grid-tie with backup
- Built-in timer for various mode of on/off operation
- Multiple communication for USB, RS-232, Modbus and SNMP
- Monitoring software for real-time status display and control
- Parallel operation up to 4 units only for 30KW

### Introduction:

This hybrid PV inverter can provide power to connected loads by utilizing PV power, utility power and battery power.



# IGrid TX/TX-PA 3 Phase Transformer Type Hybrid Inverter Specification

| MODEL                                          | IGrid TX 20KW                                     |  | IGrid TX 30KW                               |  |
|------------------------------------------------|---------------------------------------------------|--|---------------------------------------------|--|
| MAXIMUM PV INPUT POWER                         | 30KW                                              |  | 45KW                                        |  |
| RATED OUTPUT POWER                             | 20KW                                              |  | 30KW                                        |  |
| MAXIMUM CHARGING POWER                         | 20KW                                              |  | 30KW                                        |  |
| GRID-TIE OPERATION                             |                                                   |  |                                             |  |
| PV INPUT (DC)                                  |                                                   |  |                                             |  |
| Nominal DC Voltage / Maximum DC Voltage        | 720 VDC / 950 VDC                                 |  |                                             |  |
| Start-up Voltage / Initial Feeding Voltage     | 500 VDC / 550 VDC                                 |  |                                             |  |
| MPP Voltage Range                              | 460 VDC ~ 900 VDC                                 |  |                                             |  |
| Full power MPP Voltage Range                   | 625 VDC ~ 900 VDC                                 |  |                                             |  |
| Number of MPP Trackers / Maximum Input Current | 1 / 48A                                           |  | 1 / 72A                                     |  |
| GRID OUTPUT (AC)                               |                                                   |  |                                             |  |
| Nominal Output Voltage                         | 230 VAC* (P-N) / 400 VAC (P-P)                    |  |                                             |  |
| Output Voltage Range                           | 195.5 - 253 VAC per phase                         |  |                                             |  |
| Output Frequency Range                         | 49 ~ 51 Hz or 59.3 ~ 60.5 Hz                      |  |                                             |  |
| Nominal Output Current                         | 29.0 A per phase                                  |  | 43.5 A per phase                            |  |
| Power Factor                                   | > 0.99                                            |  | 1                                           |  |
| EFFICIENCY                                     |                                                   |  |                                             |  |
| Maximum Conversion Efficiency (DC/AC)          | 91%                                               |  | 95%                                         |  |
| OFF-GRID OPERATION                             |                                                   |  |                                             |  |
| AC INPUT                                       |                                                   |  |                                             |  |
| AC Start-up Voltage/Auto Restart Voltage       | 120 - 140 VAC per phase / 180 VAC per phase       |  | 150 - 170 VAC per phase / 180 VAC per phase |  |
| Acceptable Input Voltage Range                 | 170 - 280 VAC per phase                           |  |                                             |  |
| Maximum AC Input Current                       | 40 A per phase                                    |  | 43.5 A per phase                            |  |
| PV INPUT (DC)                                  |                                                   |  |                                             |  |
| Maximum DC Power / Maximum DC Voltage          | 30KW / 950 VDC                                    |  | 45KW / 950 VDC                              |  |
| MPP Voltage Range                              | 500 VDC ~ 900 VDC                                 |  | 460 VDC ~ 900 VDC                           |  |
| Number of MPP Trackers / Maximum Input Current | 1 / 48 A                                          |  | 1 / 72 A                                    |  |
| BATTERY MODE OUTPUT (AC)                       |                                                   |  |                                             |  |
| Nominal Output Voltage                         | 230 VAC (P-N) / 400 VAC (P-P)                     |  |                                             |  |
| Output Waveform                                | Pure Sinewave                                     |  |                                             |  |
| Efficiency (DC to AC)                          | >91%                                              |  |                                             |  |
| HYBRID OPERATION                               |                                                   |  |                                             |  |
| PV INPUT (DC)                                  |                                                   |  |                                             |  |
| Nominal DC Voltage / Maximum DC Voltage        | 720 VDC / 950 VDC                                 |  |                                             |  |
| Start-up Voltage / Initial Feeding Voltage     | 500 VDC / 550 VDC                                 |  |                                             |  |
| MPP Voltage Range                              | 500 VDC ~ 900 VDC                                 |  | 460 VDC ~ 900 VDC                           |  |
| Number of MPP Trackers / Maximum Input Current | 1 / 48 A                                          |  | 1 / 72 A                                    |  |
| GRID OUTPUT (AC)                               |                                                   |  |                                             |  |
| Nominal Output Voltage                         | 230 VAC* (P-N) / 400 VAC (P-P)                    |  |                                             |  |
| Output Voltage Range                           | 184 - 265 VAC per phase                           |  | 195.5 - 253 VAC per phase                   |  |
| Output Frequency Range                         | 47.5 ~ 51.5 Hz or 59.3 ~ 60.5 Hz                  |  | 49 ~ 51 Hz or 59.3 ~ 60.5 Hz                |  |
| Nominal Output Current                         | 29 A per phase                                    |  | 43.5 A per phase                            |  |
| Power Factor                                   | > 0.99                                            |  | 1                                           |  |
| AC INPUT                                       |                                                   |  |                                             |  |
| AC Start-up Voltage / Auto Restart Voltage     | 120 - 140 VAC per phase / 180 VAC per phase       |  | 150 - 170 VAC per phase / 180 VAC per phase |  |
| Acceptable Input Voltage Range                 | 170 - 280 VAC per phase                           |  |                                             |  |
| Maximum AC Input Current                       | 40 A per phase                                    |  | 43.5 A per phase                            |  |
| BATTERY MODE OUTPUT (AC)                       |                                                   |  |                                             |  |
| Nominal Output Voltage                         | 230 VAC (P-N) / 400 VAC (P-P)                     |  |                                             |  |
| Efficiency (DC to AC)                          | >91%                                              |  |                                             |  |
| BATTERY & CHARGER                              |                                                   |  |                                             |  |
| Nominal Battery Voltage/Charging Voltage Range | 384 VDC                                           |  | 384 VDC / 384 VDC ~ 480 VDC                 |  |
| Maximum Charging Current                       | 50A                                               |  | 80A                                         |  |
| GENERAL                                        |                                                   |  |                                             |  |
| PHYSICAL                                       |                                                   |  |                                             |  |
| Dimension, D x W x H (mm)                      | 559 x 320 x 909                                   |  | 430 x 715 x 1021                            |  |
| Net Weight (kgs)                               | 120                                               |  | 223                                         |  |
| INTERFACE                                      |                                                   |  |                                             |  |
| Communication Port                             | RS-232/USB                                        |  |                                             |  |
| Intelligent Slot                               | Optional SNMP, GPRS, WIFI, Modbus cards available |  |                                             |  |
| ENVIRONMENT                                    |                                                   |  |                                             |  |
| Humidity                                       | 0 ~ 90% RH (Non-Condensing)                       |  |                                             |  |
| Operating Temperature                          | -10 to 55°C                                       |  |                                             |  |
| Altitude                                       | 0 ~ 1000 m**                                      |  |                                             |  |

\*These figures are based on VDE-4105 standard. All figures may vary depending on different AC voltage and country requirements.

\*\* Power derating 1% every 100 m when altitude is over 1000m  
Product specifications are subject to change without further notice.

# Solar Inverter

## ISolar MLV-U MPPT Solar Inverter



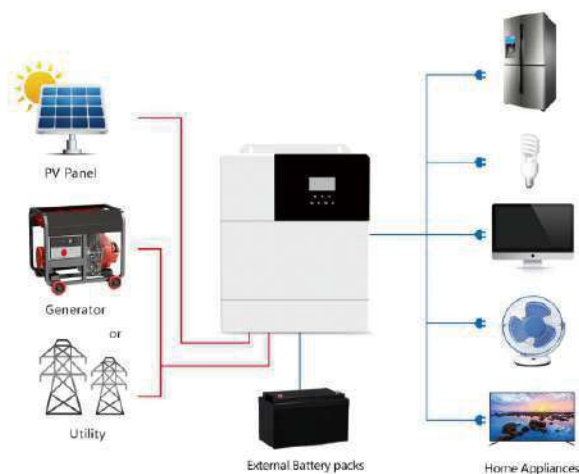
- Full digital voltage and current double closed loop control, advanced SPWM technology, output of pure sinewave.
- Two output modes: mains bypass and inverter output; uninterrupted power supply.
- Available in 4 charging modes: Only Solar, Mains Priority, Solar Priority and Mains & Solar hybrid charging.
- Advanced MPPT technology with an efficiency of 99.9%.
- With the charging requirement (voltage, current, mode) settings and suitable for various types of energystorage batteries.
- ON/OFF rocker switch for AC output control.
- Power saving mode available to reduce no-load loss
- Intelligent variable speed fan to efficiently dissipate heat and extend system life.
- Lithium battery activation design, allowing access of lead-acid battery and lithium battery.
- 360 ° all-round protection with a number of protection functions. Such as overload, short circuit and overcurrent.
- Supply of a variety of user-friendly communication modules, such as RS485 (GPRS, WiFi, Bluetooth), CAN, USB etc., and suitable for computer, mobile phones, Internet monitoring as well as remote operations.

### Introduction:

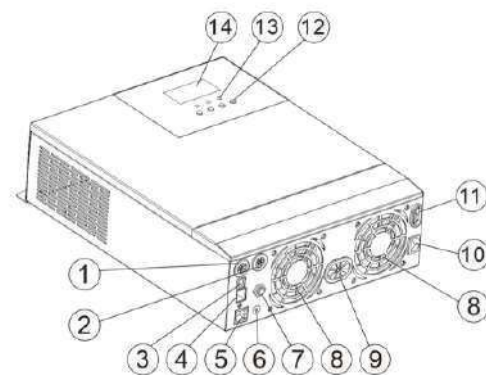
MLV-U series is a new all-in-one Offgrid hybrid solar charge inverter, which integrates solar energy storage & mains charging energy storage and AC sine wave output.

Thanks to DSP control and advanced control algorithm, it has high response speed, high reliability and high industrial standard.

### Product connection diagram



### Appearance



|   |                              |   |                      |
|---|------------------------------|---|----------------------|
| ① | AC input port                | ⑧ | Cooling fan          |
| ② | AC output port               | ⑨ | Battery port         |
| ③ | USB communication port       | ⑩ | ON/OFF rocker switch |
| ④ | RS485/CAN communication port | ⑪ | PV port              |
| ⑤ | Dry node port                | ⑫ | Touch button         |
| ⑥ | Grounding screw hole         | ⑬ | LED Indicator        |
| ⑦ | AC input Overload protector  | ⑭ | LCD screen           |

# ISolar MLV -U Solar inverter control machine

| Model                                           | MLV 3KW-U                                                                                                                                                                                                                                    |           | MLV 3.5KW-U                        | MLV 5KW-U |
|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------------------------------------|-----------|
| AC mode                                         |                                                                                                                                                                                                                                              |           |                                    |           |
| Rated input voltage                             | 110/120VAC                                                                                                                                                                                                                                   |           |                                    |           |
| Input voltage range                             | (90Vac-140Vac)±2%                                                                                                                                                                                                                            |           |                                    |           |
| Frequency                                       | 50Hz/ 60Hz (Auto detection)                                                                                                                                                                                                                  |           |                                    |           |
| Frequency Range                                 | 47±0.3Hz ~ 55±0.3Hz (50Hz)/57±0.3Hz ~ 65±0.3Hz (60Hz);                                                                                                                                                                                       |           |                                    |           |
| Overload/short circuit protection               | Circuit breaker                                                                                                                                                                                                                              |           |                                    |           |
| Efficiency                                      | >95%                                                                                                                                                                                                                                         |           |                                    |           |
| Conversion time (bypass and inverter)           | 10ms (typical)                                                                                                                                                                                                                               |           |                                    |           |
| AC reverse protection                           | Available                                                                                                                                                                                                                                    |           |                                    |           |
| Maximum bypass overload current                 | 40A                                                                                                                                                                                                                                          | 40A       | 63 A                               |           |
| Inverting mode                                  |                                                                                                                                                                                                                                              |           |                                    |           |
| Output voltage waveform                         | Pure sine wave                                                                                                                                                                                                                               |           |                                    |           |
| Rated output power(VA)                          | 3000W                                                                                                                                                                                                                                        | 3500W     | 5000W                              |           |
| Rated output power(W)                           | 3000W                                                                                                                                                                                                                                        | 3500W     | 5000W                              |           |
| Power factor                                    | 1                                                                                                                                                                                                                                            |           |                                    |           |
| Rated output voltage (Vac)                      | 120VAC                                                                                                                                                                                                                                       |           |                                    |           |
| Output voltage error                            | ±5%                                                                                                                                                                                                                                          |           |                                    |           |
| Output frequency range (Hz)                     | 50Hz ± 0.3Hz/60Hz ± 0.3Hz                                                                                                                                                                                                                    |           |                                    |           |
| Efficiency                                      | >92%                                                                                                                                                                                                                                         | >90%      | >90%                               |           |
| Overload protection                             | 102% < load <110%) ±10%: report error and turn off the output after5 minutes;<br>(110% < load < 125%) ± 10%: report error and turn off the output after 10 seconds;<br>Load >125% ±10%: report error and turn offthe output after 5 seconds; |           |                                    |           |
| Peak power                                      | 4500VA                                                                                                                                                                                                                                       | 5000VA    | 10000VA                            |           |
| Loaded motor capacity                           | 2HP                                                                                                                                                                                                                                          |           | 4HP                                |           |
| Output short-circuit protection                 | Circuit breaker                                                                                                                                                                                                                              |           |                                    |           |
| Specification of bypass breaker                 | 40A                                                                                                                                                                                                                                          |           | 63A                                |           |
| Rated battery input voltage                     | 24V (Minimum starting voltage 22V)                                                                                                                                                                                                           |           | 48V (Minimum starting voltage 44V) |           |
| Battery voltage range                           | 20.0Vdc~33Vdc ± 0.6Vdc (Undervoltage alarm/shutdown voltage/overvoltage alarm overvoltage recovery... settable on LCD screen)                                                                                                                |           |                                    |           |
| Power saving mode                               | Load ≤25W                                                                                                                                                                                                                                    |           |                                    |           |
| AC charge                                       |                                                                                                                                                                                                                                              |           |                                    |           |
| Battery type                                    | Lead acid or lithium battery                                                                                                                                                                                                                 |           |                                    |           |
| Maximum charge current                          | 60A                                                                                                                                                                                                                                          | 40A       | 63A                                |           |
| Charge current error                            | ± 5Adc                                                                                                                                                                                                                                       |           |                                    |           |
| Charge voltage range                            | 18.0Vdc~33Vdc                                                                                                                                                                                                                                | 40-60VDC  | 40-60VDC                           |           |
| Short-circuit protection                        | Circuit breaker and blown fuse                                                                                                                                                                                                               |           |                                    |           |
| Breaker specification                           | 40A                                                                                                                                                                                                                                          | 40A       | 63A                                |           |
| Overcharge protection                           | Alarm and turn off charging after 1 minute                                                                                                                                                                                                   |           |                                    |           |
| PV Charging                                     |                                                                                                                                                                                                                                              |           |                                    |           |
| Maximum PV opencircuit voltage                  | 100VDC                                                                                                                                                                                                                                       | 145VDC    | 500Vdc                             |           |
| PV operation voltage range                      | 30-100VDC                                                                                                                                                                                                                                    | 60-145VDC | 120-500Vdc                         |           |
| MPPT voltage range                              | 30-95VDC                                                                                                                                                                                                                                     | 60-115VDC | 120-450Vdc                         |           |
| Battery voltage range                           | 18-33VDC                                                                                                                                                                                                                                     | 40-60VDC  | 40-60Vdc                           |           |
| Maximum output power                            | 1600W                                                                                                                                                                                                                                        | 4200W     | 5000W                              |           |
| Charge current range of solar energy (settable) | 0-60A                                                                                                                                                                                                                                        | 0-80A     | 0-80A                              |           |
| Charge short-circuit protection                 | Blown fuse                                                                                                                                                                                                                                   |           |                                    |           |
| Wiring protection                               | Reverse polarity protection                                                                                                                                                                                                                  |           |                                    |           |
| Authentication specification                    |                                                                                                                                                                                                                                              |           |                                    |           |
| Specification authentication                    | CE(IEC/EN62109-1,-2)、ROHS2.0                                                                                                                                                                                                                 |           |                                    |           |
| EMC authentication grade                        | EN61000                                                                                                                                                                                                                                      |           |                                    |           |
| Operation temperature range                     | -15°C to 55°C                                                                                                                                                                                                                                |           |                                    |           |
| Storage temperature range                       | -25°C ~ 60°C                                                                                                                                                                                                                                 |           |                                    |           |
| Humidity range                                  | 5% to 95% (Conformal coating protection)                                                                                                                                                                                                     |           |                                    |           |
| Noise                                           | ≤60dB                                                                                                                                                                                                                                        |           |                                    |           |
| Thermal dissipation                             | Forced air cooling, variable speed of fan                                                                                                                                                                                                    |           |                                    |           |
| Communication interface                         | USB/RS485(WiFi/GPRS)/Dry node control                                                                                                                                                                                                        |           |                                    |           |
| Dimension (L*W*D)                               | 378mm*280mm*103mm                                                                                                                                                                                                                            |           | 430mm*338mm*126mm                  |           |
| Weight (kg)                                     | 6.2                                                                                                                                                                                                                                          |           | 10                                 |           |

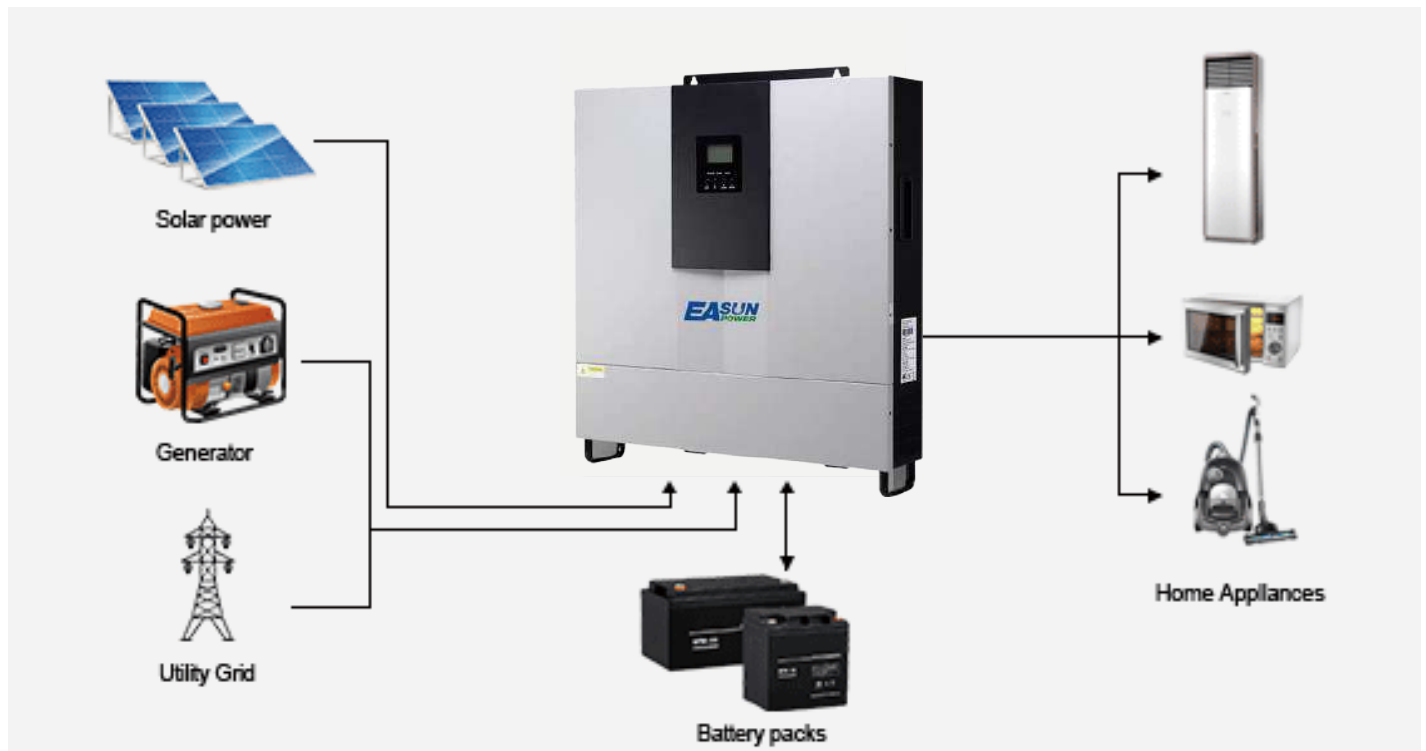
# Solar Inverter

## ISolar MLV 6KW MPPT Solar Inverter



- Pure sine wave inverter
- Selectable output voltage at 120VAC/208VAC/240VAC depending on applications
- Built-in 2 strings of MPPT solar charge controller
- Selectable input voltage range for home appliances and personal computers
- Configurable AC/Solar input priority via LCD setting
- Compatible to mains voltage or generator power
- Auto restart while AC is recovering
- Overload and short circuit protection
- Maximum 3 units in parallel operation for single phase, split phase and three phase applications

### System Diagram



# ISolar MLV Off-Grid Inverter Specification

| MODEL                                 | ISolar MLV 6KW                                                              |
|---------------------------------------|-----------------------------------------------------------------------------|
| Rated Power                           | 6000VA/6000W                                                                |
| Parallel Capability                   | Yes, 3 units                                                                |
| INPUT                                 |                                                                             |
| Rated Input Voltage                   | 110/120 VAC(L-N or L1-N-L2)                                                 |
| Input Voltage Range                   | 95 ~ 140 VAC (For Personal Computers)<br>65 ~ 140 VAC (For Home Appliances) |
| Frequency Range                       | 50 Hz/60 Hz (Auto sensing)                                                  |
| OUTPUT                                |                                                                             |
| AC Voltage Regulation (Batt. Mode)    | 110/120 VAC(L-N or L1-N-L2)                                                 |
|                                       | 90%                                                                         |
| Transfer Time                         | 10 ms (For Personal Computers)<br>20 ms (For Home Appliances)               |
| Waveform                              | Pure sine wave                                                              |
| BATTERY                               |                                                                             |
| Battery Voltage                       | 48 VDC                                                                      |
| Floating Charge Voltage               | 54 VDC                                                                      |
| Overcharge Protection                 | 60 VDC                                                                      |
| SOLAR CHARGER & AC CHARGER            |                                                                             |
| Solar Charger type                    | MPPT                                                                        |
| Maximum PV Array Open Circuit Voltage | 145 VDC                                                                     |
| Number of MPP Trackers                | 2                                                                           |
| Maximum PV Array Power                | 4000 W x 2                                                                  |
| MPP Range @ Operating Voltage         | 60 VDC ~ 115 VDC                                                            |
| Maximum Solar Charge Current          | 80 A x 2                                                                    |
| Maximum AC Charge Current             | 60 A                                                                        |
| Maximum Charge Current                | 220 A                                                                       |
|                                       | 96 %                                                                        |
|                                       | 92 %                                                                        |
| PHYSICAL                              |                                                                             |
| Dimension, D x W x H (mm)             | 130 x 622.6 x 610                                                           |
| Net Weight (kgs)                      | 30                                                                          |
| OPERATING ENVIRONMENT                 |                                                                             |
| Humidity                              | 5% to 95% Relative Humidity(Non-condensing)                                 |
| Operating Temperature                 | -10°C to 50°C                                                               |
| Storage Temperature                   | -15°C to 60°C                                                               |

# Solar Inverter

## ISolar SMW LV 6.5KW Hybrid Solar Inverter



- Status indication with RGB lights
- Built-in Wi-Fi for mobile monitoring (Android/iOS App is available)
- Supports USB On-the-Go function
- Reserved communication port for BMS (RS485, CAN-BUS or RS232)
- Replaceable fan design for ease of maintenance
- Battery independent design
- Configurable AC/PV output usage timer and prioritization
- Selectable high power charging current
- Selectable input voltage range for home appliances and personal computers
- Compatible to Utility Mains or generator input
- Built-in anti-dust kit
- Parallel operation with 6 units



### RGB light:

Different color to present output source from PV, Grid or battery and battery charge/discharge status

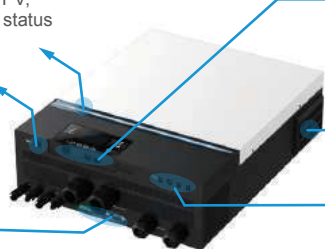


### Communication for Remote panel



### Parallel connectors:

Maximum 6 units in parallel (only for MAX-7200)



### Diverse communications:

USB On-the-Go function, Dry contact and BMS communication



### Anti-dust filter:

Increase product reliability in harsh environment

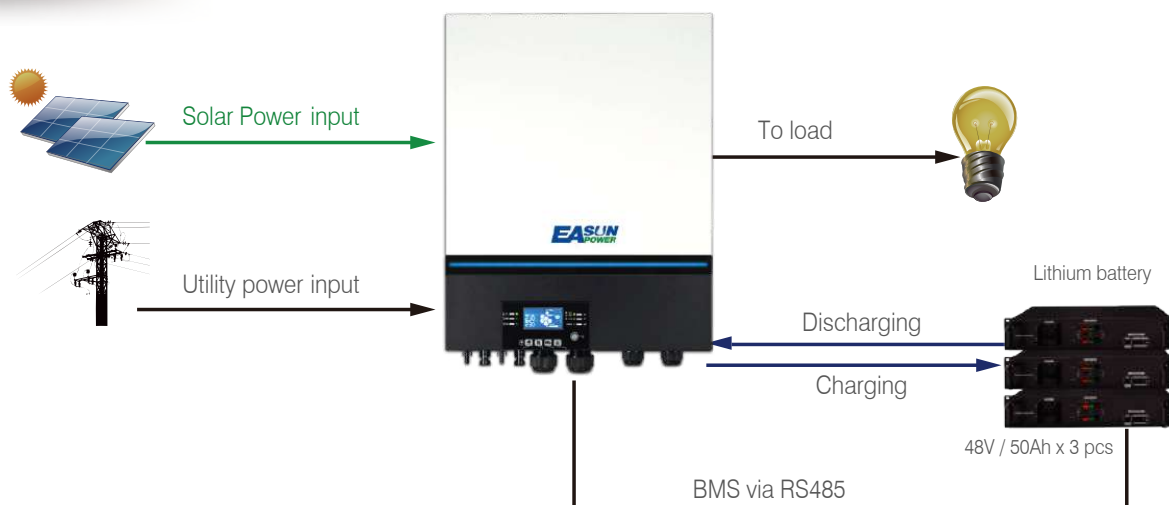


### DC output connectors:

Connect to DC fan, LED bulb or router



### System Diagram:



### Lithium-iron Battery Solution

Unit:min

| Inverter Model              | Rated Load (Watt) | Battery Model | Usable Capacity (Wh) | BAT x 1 | BAT x 2 | BAT x 3 | BAT x 4 | BAT x 5 | BAT x 6 | BAT x 7 | BAT x 8 |
|-----------------------------|-------------------|---------------|----------------------|---------|---------|---------|---------|---------|---------|---------|---------|
| SMW LV 6.5KW<br>6500-48-120 | 3250              | US2000        | 2200                 | N/A     | 73      | 109     | 146     | 182     | 219     | 255     | 292     |
|                             | 3250              | LIO-4805      | 2400                 | 39      | 79      | 119     | 159     | 199     | 239     | 279     | 319     |
|                             | 3250              | LIO-4810      | 4800                 | 79      | 159     | 239     | 319     | 398     | 478     | 558     | 638     |
|                             | 6500              | US2000        | 2200                 | N/A     | N/A     | 54      | 73      | 91      | 109     | 127     | 146     |
|                             | 6500              | LIO-4805      | 2400                 | N/A     | 39      | 59      | 79      | 99      | 119     | 139     | 159     |
|                             | 6500              | LIO-4810      | 4800                 | 39      | 79      | 119     | 159     | 199     | 239     | 279     | 319     |

# ISolar SMW LV 6.5KW Off-Grid Inverter

| MODEL                                 | ISolar SMW LV 6.5KW                                            |
|---------------------------------------|----------------------------------------------------------------|
| Rated Power                           | 6500VA/6500W                                                   |
| PARALLEL CAPABILITY                   | Yes, 6 units                                                   |
| INPUT                                 |                                                                |
| Voltage                               | 120 VAC                                                        |
| Selectable Voltage Range              | 90-140 VAC (For Computers)<br>80-140 VAC (For Home Appliances) |
| Frequency Range                       | 50 Hz/60 Hz (Auto sensing)                                     |
| OUTPUT                                |                                                                |
| AC Voltage Regulation (Batt. Mode)    | 120VAC ± 5%                                                    |
| Surge Power                           | 15000VA                                                        |
| Efficiency (Peak)                     | 90% ~ 93%                                                      |
| Transfer Time                         | 15 ms (For Personal Computers) ; 20 ms (For Home Appliances)   |
| Waveform                              | Pure sine wave                                                 |
| No Load Power Consumption             | <70W                                                           |
| Optional DC Voltage                   | 12 VDC ± 5%, 100W                                              |
| BATTERY                               |                                                                |
| Battery Voltage                       | 48 VDC                                                         |
| Floating Charge Voltage               | 54 VDC                                                         |
| Overcharge Protection                 | 66 VDC                                                         |
| SOLAR CHARGER & AC CHARGER            |                                                                |
| Solar Charger Type                    | MPPT                                                           |
| Maximum PV Array Power                | 8000W (4000W x 2)                                              |
| MPPT Range @ Operating Voltage        | 90 ~ 230 VDC                                                   |
| Maximum PV Array Open Circuit Voltage | 250 VDC                                                        |
| Maxmum Solar Charge Current           | 120 A                                                          |
| Maximum AC Charge Current             | 120 A                                                          |
| Maximum Charge Current                | 120 A                                                          |
| PHYSICAL                              |                                                                |
| Dimension, D x W x H (mm)             | 147.4 x 432.5 x 553.6                                          |
| Net Weight (kgs)                      | 18.4                                                           |
| Communication Interface               | USB/RS232/RS485/WiFi/Dry-contact                               |
| OPERATING ENVIRONMENT                 |                                                                |
| Humidity                              | 5% to 95% Relative Humidity(Non-condensing)                    |
| Operating Temperature                 | -10°C to 50°C                                                  |
| Storage Temperature                   | -15°C to 60°C                                                  |
| STANDARD                              |                                                                |
| Compliance Safety                     | UL                                                             |

Product specifications are subject to change without further notice.

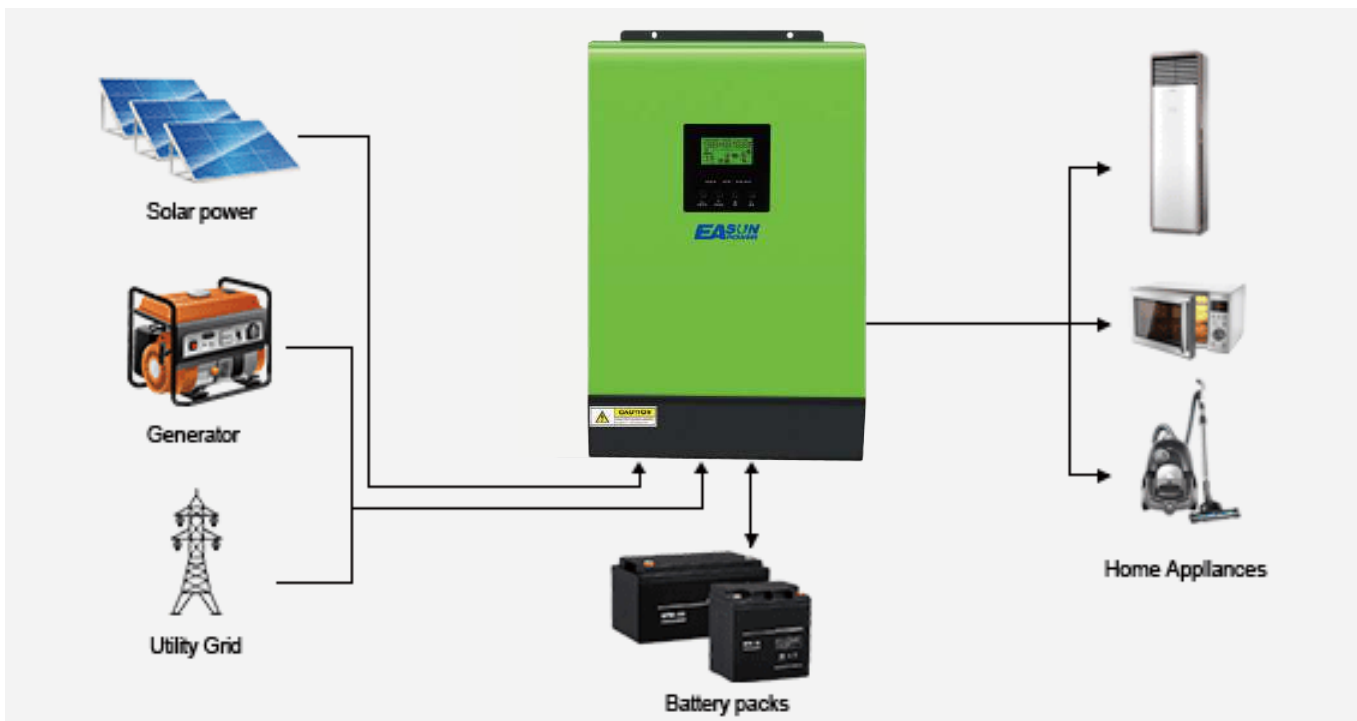
# Solar Inverter

## IGrid SV LV 3KVA Hybrid Solar Inverter



- Pure sine wave inverter
- Self-consumption and Feed-in to the grid
- Programmable supply priority for PV, Battery or Grid
- User-adjustable charging current and voltage
- Programmable multiple operation modes: Grid-tie, off-grid and grid-tie with backup
- Monitoring software for real-time status display and control
- Parallel-able for 3KW/4KW/5KW models

### System Diagram



### Interface introduction



# 110V-120V Grid Tie Solar Inverter With Energy Storage

| MODEL                                      | IGrid SV LV-3K-24              |
|--------------------------------------------|--------------------------------|
| Max. PV Array Power                        | 2000W                          |
| Maximum PV Array Open Circuit Voltage      | 145 VDC                        |
| MPPT Range @ Operating Voltage             | 30 VDC ~ 115 VDC               |
| Number of MPP Tracker                      | 1                              |
| GRID-TIE OPERATION                         |                                |
| GRID OUTPUT (AC)                           |                                |
| Nominal Output Voltage                     | 110/120 VAC                    |
| Rated Output Power                         | 2400W                          |
| Output Voltage Range                       | 88~127 Vac VAC*                |
| Nominal Output Current                     | 27 A                           |
| Power Factor                               | >0.99                          |
| EFFICIENCY                                 |                                |
| Maximum Conversion Efficiency (DC/AC)      | 90%                            |
| OFF-GRID, HYBRID OPERATION                 |                                |
| GRID INPUT                                 |                                |
| AC Start-up Voltage / Auto Restart Voltage | 60 - 70 VAC / 90 VAC           |
| Acceptable Input Voltage Range             | 95-140 VAC                     |
| Maximum AC Input Current                   | 40A                            |
| BATTERY MODE OUTPUT (AC)                   |                                |
| Nominal Output Voltage                     | 110/120 VAC                    |
| Rated Output Power                         | 2400W / 3000VA                 |
| Output Waveform                            | Pure Sine Wave                 |
| Efficiency (DC to AC)                      | 93%                            |
| BATTERY & CHARGER                          |                                |
| Nominal DC Voltage                         | 24 VDC                         |
| Maximum Charging Current (from Grid)       | 60A                            |
| Maximum Charging Current (from PV)         | 80A                            |
| Maximum Charging Current                   | 140A                           |
| GENERAL                                    |                                |
| PHYSICAL                                   |                                |
| Dimension, D X W X H (mm)                  | 120x295x505                    |
| Net Weight (kgs)                           | 11.5                           |
| INTERFACE                                  |                                |
| Parallel-able                              | Yes. Single phase, Split phase |
| External Safety Box (Optional)             | Yes                            |
| Communication                              | USB/Dry-Contact                |
| ENVIRONMENT                                |                                |
| Humidity                                   | 0 ~ 90% RH (No condensing)     |
| Operating Temperature                      | 0 to 50° C                     |

\*These figures may vary depending on different AC voltage and country requirements.



# Solar Inverter

## IGrid SV LV II 6KW (Split phase)



- Pure sine wave output
- Self-consumption and Feed-in to the grid
- Programmable supply priority for PV, Battery or Grid
- User-adjustable charging current up to 100A
- Detachable LCD control module with multiple communications
- Built-in WI-FI for mobile monitoring (App is available)
- Reserved communication port for BMS (RS485)
- Parallel operation up to 9 units

### IGrid SV LV II 6KW Split Phase On-Grid Inverter with Energy Storage Specification

| MODEL                                          | IGrid SV LV II 6KW                                        |
|------------------------------------------------|-----------------------------------------------------------|
| PHASE                                          | Split phase                                               |
| Maximum PV Input Power                         | 6000 W                                                    |
| Rated Output Power                             | 6000 VA                                                   |
| Maximum Charging Power                         | 5000 W                                                    |
| GRID-TIE OPERATION                             |                                                           |
| PV INPUT (DC)                                  |                                                           |
| Nominal DC Voltage / Maximum DC Voltage        | 360 VDC / 450 VDC                                         |
| Start-up Voltage / Initial Feeding Voltage     | 110VDC / 120 VDC                                          |
| MPP Voltage Range                              | 120 VDC ~ 450 VDC                                         |
| Number of MPP Trackers / Maximum Input Current | 1 / 27 A                                                  |
| GRID OUTPUT (AC)                               |                                                           |
| Nominal Output Voltage                         | 110 VAC (P-N) / 220 VAC (P-P)                             |
| Output Voltage Range                           | 91.5 - 132 VAC (P-N)/ 183 - 264 VAC (P-P)                 |
| Nominal Output Current                         | 27.3 A per phase                                          |
| Power Factor                                   | > 0.99                                                    |
| EFFICIENCY                                     |                                                           |
| Maximum Conversion Efficiency (DC/AC)          | 95%                                                       |
| OFF-GRID OPER                                  |                                                           |
| AC INPUT                                       |                                                           |
| AC Start-up Voltage / Auto Restart Voltage     | 65 VAC (P-N), 130 VAC (P-P) / 70 VAC (P-N), 140 VAC (P-P) |
| Acceptable Input Voltage Range                 | 65 - 140 VAC (P-N)/ 130 - 280 VAC (P-P)                   |
| Frequency Range                                | 50 Hz/60 Hz (Auto sensing)                                |
| Maximum AC Input Current                       | 40 A per phase                                            |
| PV INPUT (DC)                                  |                                                           |
| Maximum DC Voltage                             | 450 VDC                                                   |
| MPP Voltage Range                              | 120 VDC ~ 450 VDC                                         |
| Number of MPP Trackers / Maximum Input Current | 1 / 27 A                                                  |
| BATTERY MODE OUTPUT (AC)                       |                                                           |
| Nominal Output Voltage                         | 110 VAC (P-N) / 220 VAC (P-P)                             |
| Output Waveform                                | Pure sine wave                                            |
| Efficiency (DC to AC)                          | 88%                                                       |
| HYBRID OPER                                    |                                                           |
| PV INPUT (DC)                                  |                                                           |
| Nominal DC Voltage / Maximum DC Voltage        | 360 VDC / 450 VDC                                         |
| Start-up Voltage / Initial Feeding Voltage     | 110VDC / 120 VDC                                          |
| MPP Voltage Range                              | 120 VDC ~ 450 VDC                                         |
| Number of MPP Trackers / Maximum Input Current | 1 / 27 A                                                  |
| GRID OUTPUT (AC)                               |                                                           |
| Nominal Output Voltage                         | 110 VAC (P-N) / 220 VAC (P-P)                             |
| Output Voltage Range                           | 91.5 - 132 VAC (P-N)/ 183 - 264 VAC (P-P)                 |
| Nominal Output Current                         | 27.3 A per phase                                          |
| AC INPUT                                       |                                                           |
| AC Start-up Voltage / Auto Restart Voltage     | 65 VAC (P-N), 130 VAC (P-P) / 70 VAC (P-N), 140 VAC (P-P) |
| Acceptable Input Voltage Range                 | 65 - 140 VAC (P-N)/ 130 - 280 VAC (P-P)                   |
| Maximum AC Input Current                       | 40 A per phase                                            |
| BATTERY MODE OUTPUT (AC)                       |                                                           |
| Nominal Output Voltage                         | 110 VAC (P-N) / 220 VAC (P-P)                             |
| Output Waveform                                | Pure sine wave                                            |
| Efficiency (DC to AC)                          | 88%                                                       |
| BATTERY & CHARGER                              |                                                           |
| Nominal DC Voltage                             | 48 VDC                                                    |
| Maximum Solar Charging Current                 | 100A                                                      |
| Maximum AC Charging Current                    | 100A                                                      |
| Maximum Charging Current                       | 100A                                                      |
| GENERAL                                        |                                                           |
| PHYSICAL                                       |                                                           |
| Dimension, D x W x H (mm)                      | 138.4 x 365 x 593.6                                       |
| Gross weight (kgs)                             | 26                                                        |
| INTER                                          |                                                           |
| Communication                                  | USB/RS-232/RS-485/WiFi/Dry contact                        |
| ENVIRONMENT                                    |                                                           |
| Humidity                                       | 0 ~ 90% RH (Non-condensing)                               |
| Operating Temperature                          | -10°C to 55°C                                             |

Product specifications are subject to change without further notice.

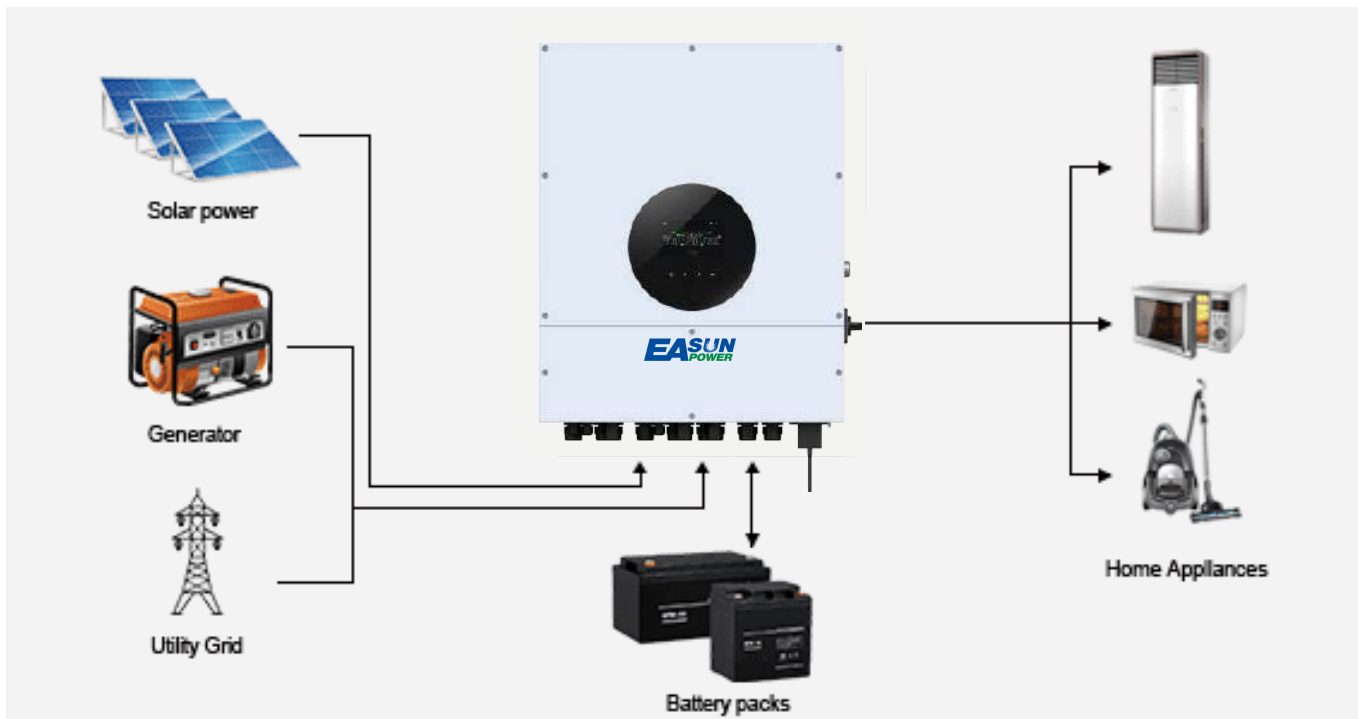
# Solar Inverter

## IGrid WP LV Hybrid Solar Inverter



- IP65 waterproof and dustproof for various working conditions
- Support multiple input & output- Split Phase 208/240Vac or Single Phase 230Vac
- Built-in WiFi for mobile monitoring (APP is available)
- Dual outputs selected as either programmable output or generator input
- Built-in alternative port for generator and emergent load
- Optional external CT sensor to guarantee 100% self-consumption
- Built-in communication port for BMS (RS485)
- User-adjustable charging current and voltage
- Parallel operation up to 6 units

### System Diagram



# IGrid WP Split-phase On-Grid Inverter with Energy Storage Selection Guide

| MODEL                                          | IGrid WP LV 6KW                                   | IGrid WP LV 10KW                                 |
|------------------------------------------------|---------------------------------------------------|--------------------------------------------------|
| Phase                                          | 120/240V Split phase, 120V/208V Split phase       | 120/240V Split phase, 120V/208V Two-thirds phase |
| Maximum PV Input Power                         | 7500W                                             | 14500W                                           |
| Rated Output Power                             | 6000VA/6000W                                      | 10000VA/10000W                                   |
| Maximum Charging Power                         | 6000W                                             | 10000W                                           |
| GRID-TIE OPERATION                             |                                                   |                                                  |
| PV INPUT (DC)                                  |                                                   |                                                  |
| Maximum DC Voltage                             | 600 VDC                                           | 600 VDC                                          |
| Start-up Voltage / Initial Feeding Voltage     | 120VDC / 160 VDC                                  | 120VDC / 160 VDC                                 |
| MPP Voltage Range                              | 120 VDC ~ 550 VDC                                 | 120 VDC ~ 550 VDC                                |
| Number of MPP Trackers / Maximum Input Current | 2 / 15A                                           | 2 / 27A                                          |
| GRID OUTPUT (AC)                               |                                                   |                                                  |
| Nominal Output Voltage                         | 110 VAC (P-N) / 220 VAC (P-P)                     |                                                  |
| Output Voltage Range                           | 97-132VAC(P-N) / 194VAC-264VAC(P-P)               |                                                  |
| Nominal Output Current                         | 27.3 A per phase                                  | 41.5 A per phase                                 |
| Power Factor                                   | 0.9 lag to 0.9 lead                               |                                                  |
| EFFICIENCY                                     |                                                   |                                                  |
| Maximum Conversion Efficiency (DC/AC)          | 96%                                               |                                                  |
| OFF-GRID OPERATION                             |                                                   |                                                  |
| AC INPUT                                       |                                                   |                                                  |
| AC Start-up Voltage / Auto Restart Voltage     | 85VAC(P-N), 170VAC(P-P) / 90VAC(P-N), 180VAC(P-P) |                                                  |
| Acceptable Input Voltage Range                 | 85 - 140 VAC (P-N)/ 170 - 280 VAC (P-P)           |                                                  |
| Frequency Range                                | 50 Hz/60 Hz (Auto sensing)                        |                                                  |
| Maximum AC Input Current                       | 30 A per phase                                    | 50 A per phase                                   |
| PV INPUT (DC)                                  |                                                   |                                                  |
| Maximum DC Voltage                             | 600 VDC                                           |                                                  |
| MPP Voltage Range                              | 120 VDC ~ 550 VDC                                 |                                                  |
| Number of MPP Trackers / Maximum Input Current | 2 / 15A                                           | 2 / 27A                                          |
| BATTERY MODE OUTPUT (AC)                       |                                                   |                                                  |
| Nominal Output Voltage                         | 110 VAC (P-N) / 220 VAC (P-P)                     |                                                  |
| Output Waveform                                | Pure sine wave                                    |                                                  |
| Efficiency (DC to AC)                          | 91%                                               | 96%                                              |
| HYBRID OPERATION                               |                                                   |                                                  |
| PV INPUT (DC)                                  |                                                   |                                                  |
| Maximum DC Voltage                             | 600 VDC                                           |                                                  |
| Start-up Voltage / Initial Feeding Voltage     | 120VDC / 160 VDC                                  |                                                  |
| MPP Voltage Range                              | 120 VDC ~ 550 VDC                                 |                                                  |
| Number of MPP Trackers / Maximum Input Current | 2 / 15A                                           | 2 / 27A                                          |
| GRID OUTPUT (AC)                               |                                                   |                                                  |
| Nominal Output Voltage                         | 110 VAC (P-N) / 220 VAC (P-P)                     |                                                  |
| Output Voltage Range                           | 97-132VAC(P-N) / 194VAC-264VAC(P-P)               |                                                  |
| Nominal Output Current                         | 27.3 A per phase                                  | 41.5 A per phase                                 |
| AC INPUT                                       |                                                   |                                                  |
| AC Start-up Voltage / Auto Restart Voltage     | 85VAC(P-N), 170VAC(P-P) / 90VAC(P-N), 180VAC(P-P) |                                                  |
| Acceptable Input Voltage Range                 | 85 - 140 VAC (P-N)/ 170 - 280 VAC (P-P)           |                                                  |
| Maximum AC Input Current                       | 30 A per phase                                    | 50 A per phase                                   |
| BATTERY MODE OUTPUT (AC)                       |                                                   |                                                  |
| Nominal Output Voltage                         | 110 VAC (P-N) / 220 VAC (P-P)                     |                                                  |
| Efficiency (DC to AC)                          | 91%                                               | 96%                                              |
| BATTERY & CHARGER                              |                                                   |                                                  |
| Nominal DC Voltage                             | 42-62 VDC                                         | 80-576 VDC                                       |
| Maximum Solar Charging Current                 | 120 A                                             | 50 A                                             |
| Maximum AC Charging Current                    | 120 A                                             | 50 A                                             |
| Maximum Charging Current                       | 120 A                                             | 50 A                                             |
| GENERAL                                        |                                                   |                                                  |
| PHYSICAL                                       |                                                   |                                                  |
| Dimension, D x W x H (mm)                      | 215.5 x 515 x 700                                 | 262 x 500 x 575                                  |
| Net Weight (kgs)                               | 41                                                | 50                                               |
| INTERACE                                       |                                                   |                                                  |
| Parallel Function                              | Yes, 6 units                                      |                                                  |
| Communication Port                             | RS232, RS485, WI-FI, USB                          |                                                  |
| ENVIRONMENT                                    |                                                   |                                                  |
| Protection Degree                              | IP 65                                             |                                                  |
| Operating Temperature                          | -25°C to 60°C (>45°C derating)                    |                                                  |

Product specifications are subject to change without further notice.

# Solar Controller

## Tracer-AN Series MPPT Solar Charge Controller



- Advanced MPPT technology, with efficiency no less than 99.5%
- Ultra-fast tracking speed and guaranteed tracking efficiency
- Advanced MPPT control algorithm to minimize the maximum power point loss rate and loss time
- Wide MPP operating voltage range
- High quality components, perfecting system performance, with maximum conversion efficiency of 98%
- Accurate recognition and tracking of multiple-peaks maximum power point
- International famous brands of ST and IR's components of high quality and low failure rate are used, which can ensure the product's service life
- Charging power and current limitation function

### Protection function

- PV Over Current/power
- Night Reverse Charging
- Battery Over Discharge
- Lithium Battery Low Temperature
- TVS High Voltage Transients
- PV Short Circuit
- Battery Reverse Polarity
- Battery Overheating
- Load Short Circuit ,
- PV Reverse Polarity
- Battery Over Voltage
- Controller Overheating★
- Load Overload

★When the internal temperature is 81°C, the reducing power charging mode which reduce the charging power of 5%,10%,20%,40% every increase 1 °C is turned on. If the internal temperature is greater than 85°C, the controller will stop charging. But while the temperature decline to be below 75 °C, the controller will resume.

### Accessories



#### Remote Meter(MT50)

Set the controller parameter via the LCD display



#### Data logger (eLOG01)

Real-time parameter recording of the product through the RS485 communication mode



#### Remote temperature sensor RTS300R47K3.81A (3m)



#### Bluetooth adapter (Box-BLE-01)

with 2m communication cable  
( for the controller with RS485  
port )



#### WIFI adapter (eBox-WIFI-01)

with 2m communication cable  
( for the controller with RS485  
port )



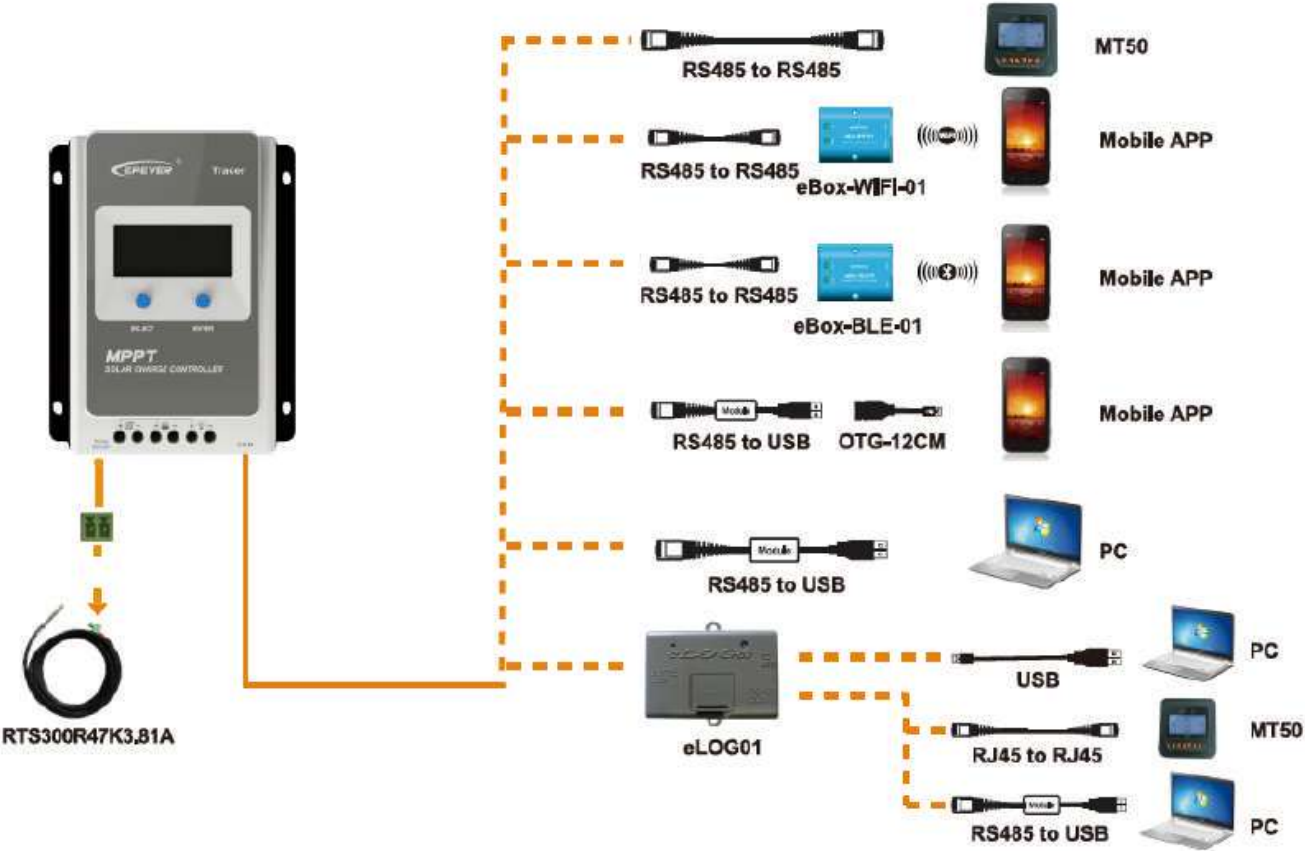
#### Communication cable CC-USB-RS485-150U

USB to RS485 PC communication  
cable (1.5m)



#### OTG cable (OTG-12CM)

Connect the controller to mobile  
APP



| Item                                            | Tracer<br>1206AN                     | Tracer<br>2206AN                 | Tracer<br>1210AN                      | Tracer<br>2210AN             | Tracer<br>3210AN         | Tracer<br>4210AN          |
|-------------------------------------------------|--------------------------------------|----------------------------------|---------------------------------------|------------------------------|--------------------------|---------------------------|
| System nominal voltage                          | 12/24VDC <sup>①</sup> Auto           |                                  |                                       |                              |                          |                           |
| Rated charge current                            | 10A                                  | 20A                              | 10A                                   | 20A                          | 30A                      | 40A                       |
| Rated discharge current                         | 10A                                  | 20A                              | 10A                                   | 20A                          | 30A                      | 40A                       |
| Battery voltage range                           | 8~32V                                |                                  |                                       |                              |                          |                           |
| Max. PV open circuit voltage                    | 60V <sup>②</sup><br>46V <sup>③</sup> |                                  | 100V <sup>②</sup><br>92V <sup>③</sup> |                              |                          |                           |
| MPP voltage range                               | (Battery voltage +2V)~<br>36V        |                                  | (Battery voltage +2V)~<br>72V         |                              |                          |                           |
| Max. PV input power                             | 130W/12V<br>260W/24V                 | 260W/12V<br>520W/24V             | 130W/12V<br>260W/24V                  | 260W/12<br>V<br>520W/24<br>V | 390W/12V<br>780W/24V     | 520W/12V<br>1040W/24<br>V |
| Self-consumption                                | ≤12mA                                |                                  |                                       |                              |                          |                           |
| Discharge circuit voltage drop                  | ≤0.23V                               |                                  |                                       |                              |                          |                           |
| Temperature compensate coefficient <sup>④</sup> | -3mV/°C/2V (Default)                 |                                  |                                       |                              |                          |                           |
| Grounding                                       | Common negative                      |                                  |                                       |                              |                          |                           |
| RS485 interface                                 | 5VDC/100mA                           |                                  |                                       |                              |                          |                           |
| LCD backlight time                              | 60S (Default)                        |                                  |                                       |                              |                          |                           |
| Working environment temperature◆                |                                      | -25℃~+50℃(100% input and output) |                                       |                              |                          |                           |
| Storage temperature range                       |                                      | -20℃~+70℃                        |                                       |                              |                          |                           |
| Relative humidity                               |                                      | ≤95%, N.C.                       |                                       |                              |                          |                           |
| Enclosure                                       |                                      | IP30                             |                                       |                              |                          |                           |
| Item                                            | Tracer1206AN<br>Tracer1210AN         | Tracer2206AN<br>Tracer2210AN     | Tracer3210AN                          |                              | Tracer4210AN             |                           |
| Dimension                                       | 172x139 x 44mm                       | 220x154x 52mm                    | 228x164x55mm                          |                              | 252x180x63mm             |                           |
| Mounting dimension                              | 130x130mm                            | 170x145mm                        | 170x164mm                             |                              | 210x171mm                |                           |
| Mounting hole size                              | Φ5mm                                 |                                  |                                       |                              |                          |                           |
| Terminal                                        | 12AWG(4mm <sup>2</sup> )             | 6AWG(16mm <sup>2</sup> )         | 6AWG(16mm <sup>2</sup> )              |                              | 6AWG(16mm <sup>2</sup> ) |                           |
| Recommended cable                               | 12AWG(4mm <sup>2</sup> )             | 10AWG(6mm <sup>2</sup> )         | 8AWG(10mm <sup>2</sup> )              |                              | 6AWG(16mm <sup>2</sup> ) |                           |
| Weight                                          | 0.57kg                               | 0.94kg                           | 1.26kg                                |                              | 1.65kg                   |                           |
| Certification                                   | CE IEC62109                          |                                  |                                       |                              |                          |                           |

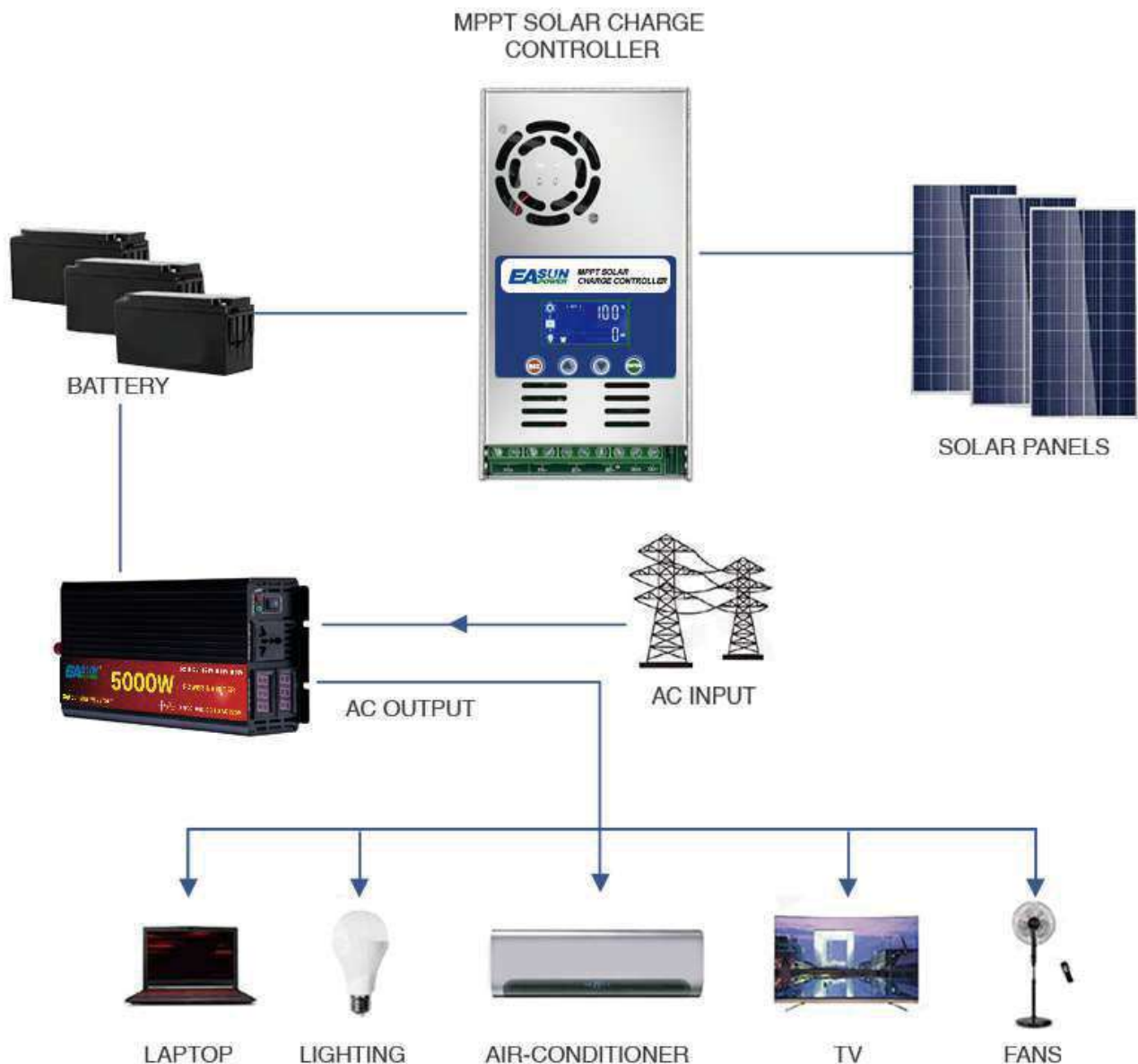
# Solar Controller

## ICharger MPPT 6048 60A MPPT Solar Charge Controller



- MPPT solar charge controller
- 12/24/36/48 V battery system auto recognition
- 180Voc max PV input voltage
- Key operation for parameter settings
- Cooling fan and metal case; stable cooling effect
- LCD screen display; background light function in dark environment
- Over rating electronic components to minimize the power loss from heating

### System connection diagram:



# ICharger MPPT 6048 Specification

| ITEM                                               |                  | Parameter                                                   |                  |                  |                  |                  |                  |
|----------------------------------------------------|------------------|-------------------------------------------------------------|------------------|------------------|------------------|------------------|------------------|
| Models                                             |                  | ICharger MPPT 6048                                          |                  |                  |                  |                  |                  |
| Charging mode                                      |                  | 3-stage: constant current(MPPT), constant voltage, floating |                  |                  |                  |                  |                  |
| System Voltage                                     |                  | 12/24/36/48/Auto                                            |                  |                  |                  |                  |                  |
| Max PV Input Power                                 |                  | 720W/12V; 1440W/24V; 2160W/36V; 2880W/48V                   |                  |                  |                  |                  |                  |
| Max PV Input Voltage                               |                  | 180 Voc                                                     |                  |                  |                  |                  |                  |
| Battery voltage automatic recognition: 48V Battery |                  | DC40V~DC60V                                                 |                  |                  |                  |                  |                  |
| Overcharging protection voltage: 48V Battery       |                  | 60V                                                         |                  |                  |                  |                  |                  |
| Limited current protection                         |                  | 61A                                                         |                  |                  |                  |                  |                  |
| Max efficiency                                     |                  | ≥98.1%                                                      |                  |                  |                  |                  |                  |
| PV utilization                                     |                  | ≥99%                                                        |                  |                  |                  |                  |                  |
| Protection Function                                |                  |                                                             |                  |                  |                  |                  |                  |
| Temperature protection                             |                  | 75℃                                                         |                  |                  |                  |                  |                  |
| Fan-on temperature                                 |                  | >45℃                                                        |                  |                  |                  |                  |                  |
| Fan-off temperature                                |                  | <40℃                                                        |                  |                  |                  |                  |                  |
| Properties                                         |                  |                                                             |                  |                  |                  |                  |                  |
| Size (mm)                                          |                  | 214x115x50                                                  |                  |                  |                  |                  |                  |
| Net weight(Kg)                                     |                  | 1.1                                                         |                  |                  |                  |                  |                  |
| Gross weight(Kg)                                   |                  | 1.2                                                         |                  |                  |                  |                  |                  |
| Electromagnetic compatibility                      |                  | Accord to EN61000, EN55022, EN55024                         |                  |                  |                  |                  |                  |
| Enclosure                                          |                  | IP21                                                        |                  |                  |                  |                  |                  |
| Environmental temperature                          |                  | -20℃ ~ +55℃                                                 |                  |                  |                  |                  |                  |
| Storage temperature                                |                  | -40℃ ~ +75℃                                                 |                  |                  |                  |                  |                  |
| Battery Parameters                                 |                  |                                                             |                  |                  |                  |                  |                  |
| Battery Type                                       | System Volt      | EQU                                                         | BST              | FLD              | BST_R            | LRV              | LDV              |
| GEL                                                | Auto             | 14.2V                                                       | 14.2V            | 13.8V            | 13.2V            | 12.6V            | 12.0V            |
| SEL                                                | Auto             | 14.6V                                                       | 14.4V            | 13.8V            | 13.2V            | 12.6V            | 12.0V            |
| FLD                                                | Auto             | 14.8V                                                       | 14.6V            | 13.8V            | 13.2V            | 12.6V            | 12.0V            |
| USE                                                | Auto/12/24/36/48 | Defined by users                                            | Defined by users | Defined by users | Defined by users | Defined by users | Defined by users |
| LI                                                 | 12/24/36/48      | ---                                                         | Defined by users | ---              | ---              | Defined by users | Defined by users |

# Solar Controller

## ICharger MPPT 4880 MPPT Solar Charge Controller



- LCD display , easy to operate on LCD screen
- Multi stage charging (3-stage charging , parallel charging and equalized charging function)
- BTS - Battery remote temperature sensor terminal
- Enable to charge Li-thium, Gel , lead-acid battery
- With RS485 & USB communication port
- Protection: PV array short circuit, PV reverse polarity, Battery reverse polarity, Over charging, Output short circuit

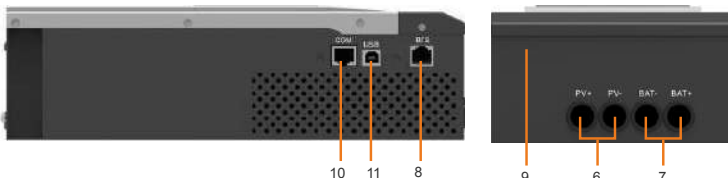
### Introduction:

MPPT (Maximum Power Point Tracking) Solar Charge Controller offer an efficient, safe, multi-stage recharging process that prolongs battery life and assures peak performance from a solar array. Each Charge Controller allows customized battery recharging.

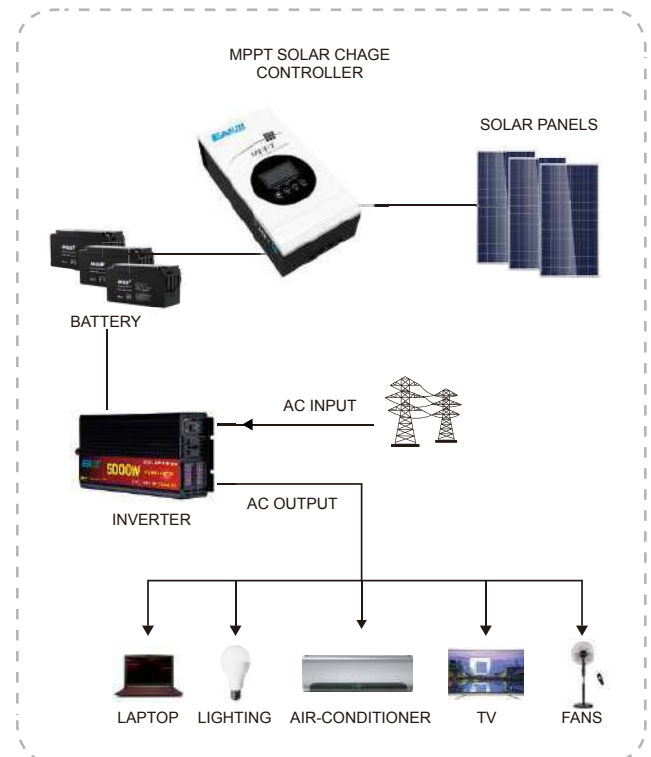
### Back panel printing description:



1. LCD display
2. Power ON/Charging indicator
3. Fault and warning indicator
4. Wiring fault indicator
5. Operation button
6. PV connectors
7. Battery connectors
8. Battery temperature sensor terminal
9. Wiring box cover
10. RS485 communication port
11. USB



### Solar system connection:



# Icharger MPPT 4880 Specification

| MODEL                          |                                      | MPPT-4880                                                                                                                                                                                       |         | MPPT-48100                                                       |                |         |
|--------------------------------|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|------------------------------------------------------------------|----------------|---------|
| Nominal Battery System Voltage |                                      | 12V24V48VDC (Auto detection); 36V (Setting)                                                                                                                                                     |         |                                                                  |                |         |
| CONTROLLER INPUT               | Battery Voltage                      | 12V                                                                                                                                                                                             | 24V     | 36V                                                              | 48V            | 48V     |
|                                | Maximum Solar Input Voltage          | 100V                                                                                                                                                                                            | 145V    |                                                                  |                |         |
|                                | PV Array MPPT Voltage Range          | 15~95V                                                                                                                                                                                          | 30~130V | 45~130V                                                          | 60~130V        | 60~130V |
|                                | Maximum Input Power                  | 12 Volt-1250W<br>24 Volt-2500W<br>36 Volt-3750W<br>48 Volt-5000W                                                                                                                                |         | 12 Volt-1560W<br>24 Volt-3120W<br>36 Volt-4680W<br>48 Volt-6250W |                |         |
| BATTERY                        | Charging Set Points                  | Absorption Stage                                                                                                                                                                                |         | Float Stage                                                      |                |         |
|                                | Flooded Battery                      | 14.2V \ 28.4V \ 42.6V \ 56.8V                                                                                                                                                                   |         | 13.7V \ 27.4V \ 41.1V \ 54.8V                                    |                |         |
|                                | AGM (Default)                        | 14.4V \ 28.8V \ 43.2V \ 57.6V                                                                                                                                                                   |         | 13.7V \ 27.4V \ 41.1V \ 54.8V                                    |                |         |
|                                | Over-charging Voltage                | 15.5V \ 30.0V \ 45.0V \ 60.0V                                                                                                                                                                   |         |                                                                  |                |         |
|                                | Over-charging Comeback Voltage       | 14.5V \ 29.5V \ 44.5V \ 59.0V                                                                                                                                                                   |         |                                                                  |                |         |
|                                | Battery Defect Voltage               | 10.0V \ 17.0V \ 25.5V \ 34.0V                                                                                                                                                                   |         |                                                                  |                |         |
|                                | Temperature Compensation Coefficient | -5mv \ °C \cell (25°c vef)                                                                                                                                                                      |         |                                                                  |                |         |
|                                | Peak Conversion Efficiency           | 98%(MPPT Efficiency 99%)                                                                                                                                                                        |         |                                                                  |                |         |
|                                | Mximum Battery Current               | 80Amps                                                                                                                                                                                          |         | 100Amps                                                          |                |         |
|                                | Max Charging Current                 | 80amps continuous @ 40°C ambient                                                                                                                                                                |         | 100amps continuous @ 40°C ambient                                |                |         |
| GENERAL SPECIFICATION          | Radiating Mode                       | Fan cooling                                                                                                                                                                                     |         |                                                                  |                |         |
| DISPLAY & PROTECTION           | Protections                          | Solar high voltage disconnect<br>Solar high voltage reconnect<br>Battery high voltage disconnect<br>Battery high voltage reconnect<br>High temperature disconnect<br>High temperature reconnect |         |                                                                  |                |         |
| MECHANICAL SPECIFICATIONS      | Mounting                             | Wall mount                                                                                                                                                                                      |         |                                                                  |                |         |
|                                | Machine Dimension (W*H*D)            | 152*85*294 mm (per pcs)                                                                                                                                                                         |         |                                                                  | 175*82.9*257.1 |         |
|                                | G.W (kg)                             | 3kg/pcs                                                                                                                                                                                         |         |                                                                  |                |         |
|                                | Package Dimension (W*H*D)            | 625*366*232 mm (4pcs / Carton)                                                                                                                                                                  |         |                                                                  |                |         |
|                                | Gross Weight (kg)                    | 14kg                                                                                                                                                                                            |         |                                                                  |                |         |
| OTHER                          | Environmental Rating                 | Indoor                                                                                                                                                                                          |         |                                                                  |                |         |
|                                | Operation Temperature Range          | -10~55°C                                                                                                                                                                                        |         |                                                                  |                |         |
|                                | Ambient Humidity                     | 0~90% relative humidity (non-condensing)                                                                                                                                                        |         |                                                                  |                |         |
|                                | Altitude                             | ≤3000m                                                                                                                                                                                          |         |                                                                  |                |         |

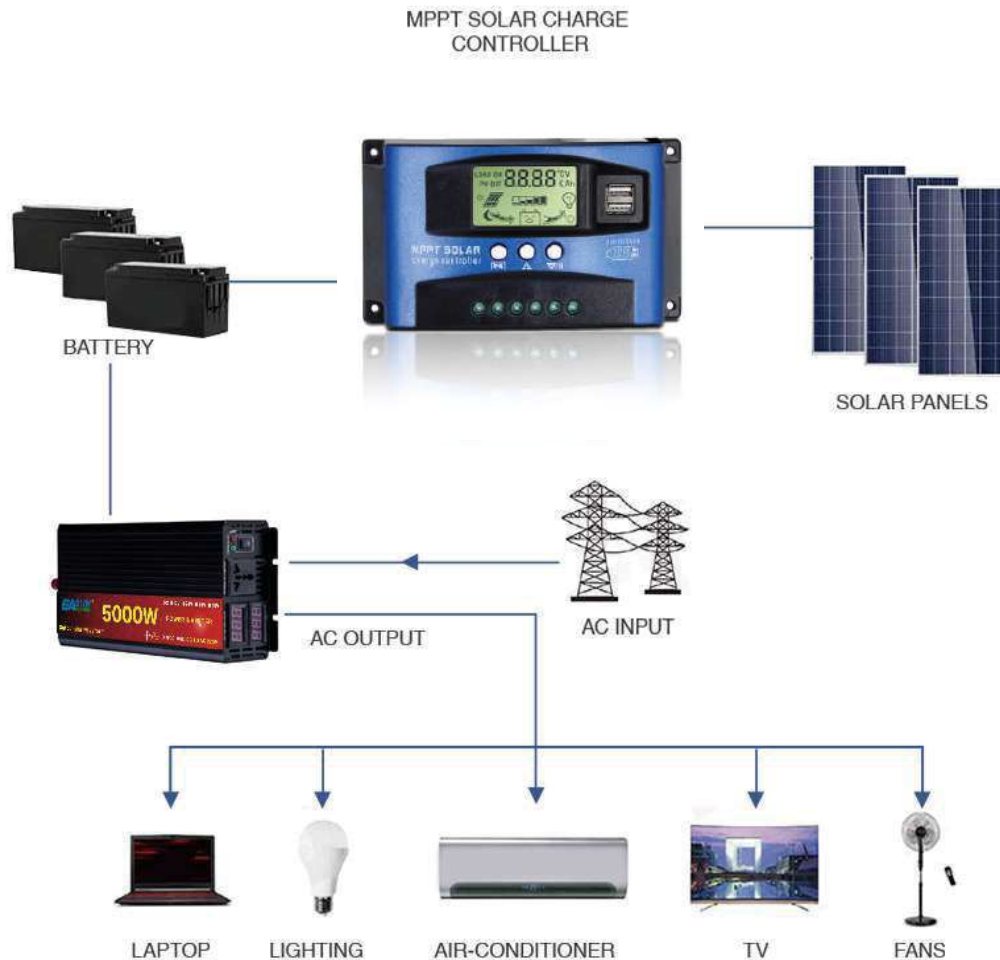
# Solar Controller

## ICarger MPPT 30-100A MPPT Solar Charge Controller

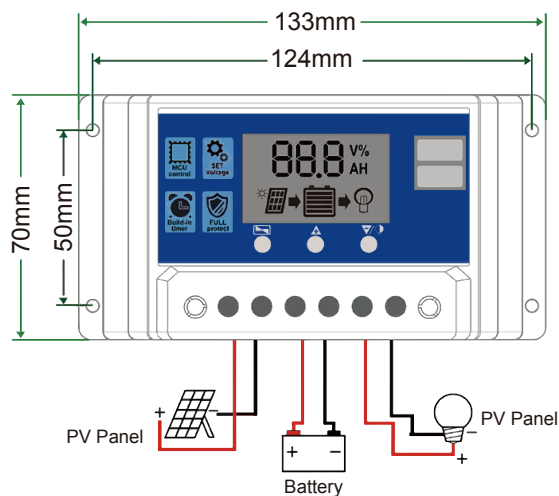


- industrial-grade master chip, 16 AD sampling accuracy, temperature, charging current, discharge current accurate real-time display, power generation at a glance
- Automatic focusing MPPT tracking charging, high charging efficiency, non-stop detection during charging, bidirectional focusing tracking
- large-screen LCD display, adjustable charging and discharging parameters. Ultra-wide charge and discharge adjustable, as long as you understand the characteristics of the battery set its corresponding charging parameters, you can charge a battery. When the output is off, the time can be adjusted, which is more convenient (on the market, there is no point adjustment).
- a complete three-phase charge management, effectively protect the battery, the battery is more
- built-in overheating, overcurrent, short circuit, open circuit protection, reverse connection durable.protection, when the fault is eliminated, the controller automatically recovers, does not damage the device
- bidirectional MOS tube anti-backflow circuit, high-power charging mode, ultra-low heat.
- R5.0 solar charging DC plug, R5.0 DC lamp output DC plug, convenient connection

### System connection diagram:



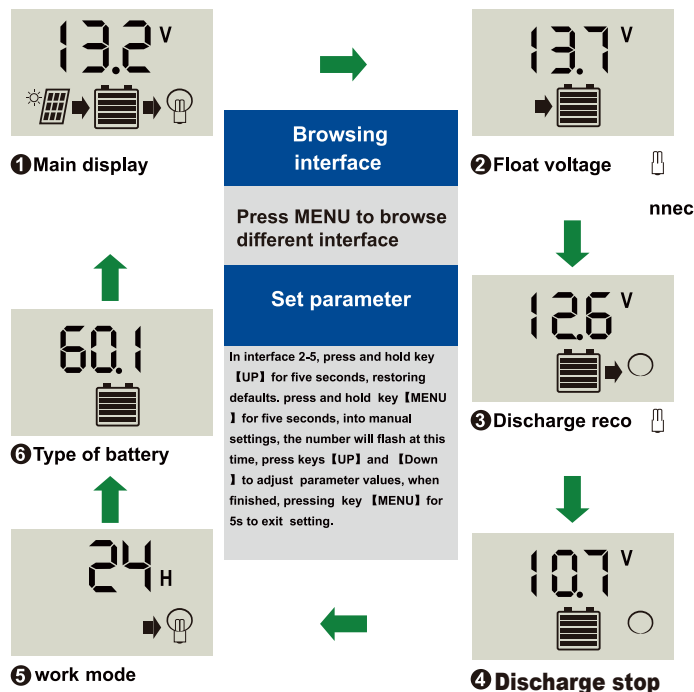
## System Connection



- Connect the battery to the charge regulator-plus and minus.
- Connect the photovoltaic module to the regulator-plus and minus.

The reverse step applies when uninstalling!  
An incorrect sequence step can damage the controller!

## LCD DISPLAY / SETTING



## Parameter Details

| Batt voltage           | 12V/24V auto                                                      |     |     |     |       |
|------------------------|-------------------------------------------------------------------|-----|-----|-----|-------|
| Charge current         | 30A                                                               | 40A | 50A | 60A | 100 A |
| Discharge current      | 10A                                                               | 10A | 20A | 20A | 30A   |
| Max solar input        | 12V battery, the highest 23V;<br>24V battery when the highest 46V |     |     |     |       |
| Equalization           | 14.4V                                                             |     |     |     |       |
| Float charge           | 13.7V (default,adjustable)                                        |     |     |     |       |
| Discharge stop         | 10.7V (default,adjustable)                                        |     |     |     |       |
| Discharge reconnect    | 12.6V(default,adjustable)                                         |     |     |     |       |
| Charge reconnect       | 13V                                                               |     |     |     |       |
| Voltage of open light  | Solar panel 8V(Light lights delay)                                |     |     |     |       |
| Voltage of close light | Solar panel 8V(Light off delay)                                   |     |     |     |       |
| USB output             | 2 way USB output, 5V/2.5A(MAX)                                    |     |     |     |       |
| Self-consume           | <10mA                                                             |     |     |     |       |
| Operating temperature  | -35 ~ +60°C                                                       |     |     |     |       |
| Size/Weight            | 170 * 92 * 45mm / 450g                                            |     |     |     |       |

# Solar Controller

## ICCharger PWM 10-60A PWM Solar Charge Controller

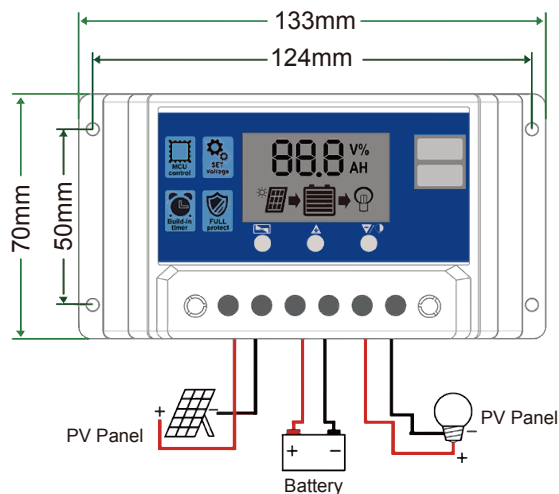


- Build-in industrial micro controller.
- Big LCD display, all adjustable parameter
- Fully 4-stage PWM charge management
- Build-in short-circuit protection, open-circuit protection, reverse protection, over-load protection.
- Dual mosfet Reverse current protection, low heat production.

System connection diagram:



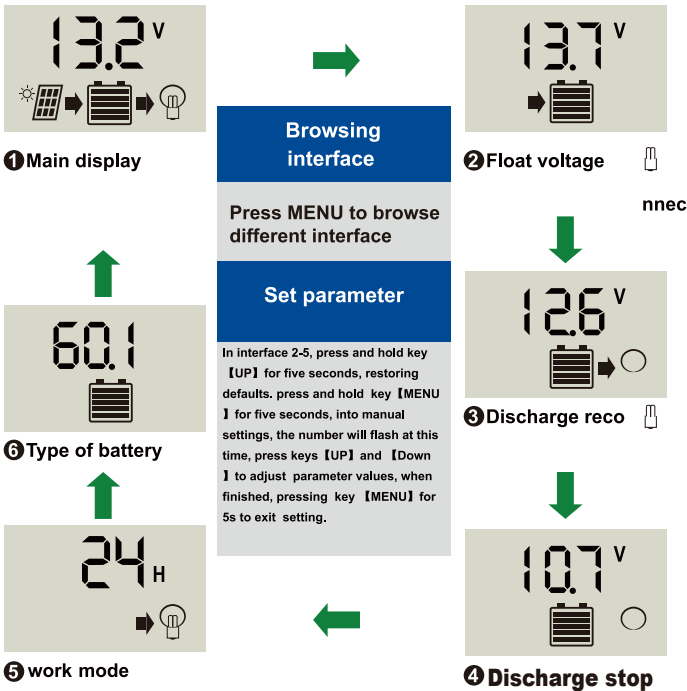
# System Connection



- Connect the battery to the charge regulator-plus and minus.
- Connect the photovoltaic module to the regulator-plus and minus.

The reverse step applies when uninstalling!  
An incorrect sequence step can damage the controller!

# LCD DISPLAY / SETTING



# Parameter Details

| MODEL                  | PWM 10A                                   | PWM 20A | PWM 30A | PWM 40A       | PWM 50A | PWM 60A |
|------------------------|-------------------------------------------|---------|---------|---------------|---------|---------|
| Battery Voltage        | 12V 24V Auto                              |         |         |               |         |         |
| Charging Current       | 10A                                       | 20A     | 30A     | 40A           | 50A     | 60A     |
| Discharging Current    | 10A                                       | 10A     | 10A     | 20A           | 30A     | 30A     |
| Max Solar input        | 50V(for 24V battery) 25V(for 12V battery) |         |         |               |         |         |
| Equalization           | 14.4V(Sealed) 14.2V(Gel) 14.6V(Flood)     |         |         |               |         |         |
| Float charge           | 13.7V(default,adjustable)                 |         |         |               |         |         |
| Discharge stop         | 10.7V(default,adjustable)                 |         |         |               |         |         |
| Discharge reconnect    | 12.6V(default,adjustable)                 |         |         |               |         |         |
| Charge reconnect       | 13V                                       |         |         |               |         |         |
| Voltage of open light  | Solar Panel 8V(Light lights delay)        |         |         |               |         |         |
| Voltage of close light | Solar Panel 8V(Light off delay)           |         |         |               |         |         |
| USB output             | 5V/3A                                     |         |         |               |         |         |
| Self-consume           | <10mA                                     |         |         |               |         |         |
| Operating temperature  | -35°C~+60°C                               |         |         |               |         |         |
| Size                   | 133.5*70*35mm                             |         |         | 133.5*70*35mm |         |         |

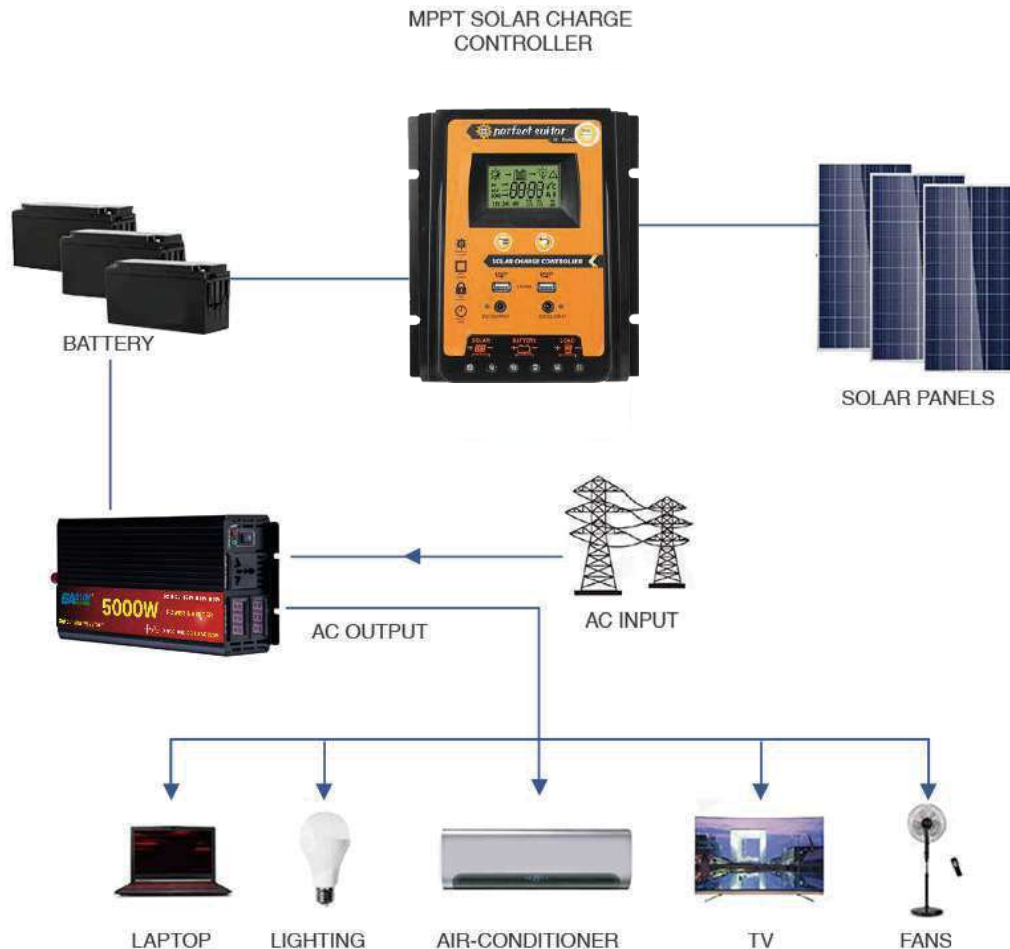
# Solar Controller

## ICharger MPPT SC 30-70A MPPT Solar Charge Controller



- Automatic Identification System Voltage, 12/24V auto recognition.
- Humanized LCD displaying and double button operation of man-machine interface
- Completed technical data for setup and modify
- The load control mode can be selected, the timer function can be reset for street light at night Discharge capacity control
- Discharge Counter of Ampere Hour
- Working Storage Function: record the total run time of system, record timers of error during running time, record times of full charged battery
- Reliable over voltage protection, short circuit protection, over load protection, overcharge protection, over-discharge protection

System connection diagram:





**70A**



**50A**



**30A**

## Icharger MPPT SC 30-70A Specification

| Model                            | ICharger MPPT SC30A                                                     | ICharger MPPT SC50A | ICharger MPPT SC70A |
|----------------------------------|-------------------------------------------------------------------------|---------------------|---------------------|
| System Voltage                   | 12V / 24V                                                               |                     |                     |
| Max. Input Voltage of sola panel | 55V                                                                     |                     |                     |
| Self-consumptlon                 | ≤10mA                                                                   |                     |                     |
| Max. charge current              | 30A                                                                     | 50A                 | 70A                 |
| Max. discharge current           |                                                                         |                     |                     |
| LVD                              | 11.0V ADJ 9V ---- 12V; ×2/24V                                           |                     |                     |
| LVR                              | 12.6V ADJ 11V ---- 13.5V; ×2/24V                                        |                     |                     |
| Float Voltage                    | 13.8V ADJ 11V ---- 13V; ×2/24V                                          |                     |                     |
| Boost charging                   | 14.4V; ×2/24V Batler Voltage less than 12V start boost charging 2 hours |                     |                     |
| Battery Ovev Voltage Protection  | 16.5V;×2/24V                                                            |                     |                     |
| Reverse Connection Protection    | yes                                                                     |                     |                     |
| Load Over Current Protection     | Yes,each two minutes restart once                                       |                     |                     |
| Temperature Compensation         | -24 mV/℃ for 12V system;×2/24V                                          |                     |                     |
| Working Temperature              | -20℃ ---- +55℃                                                          |                     |                     |
| Waterproof grade                 | IP32                                                                    |                     |                     |
| Size (mm)                        | 175.9×139×40.1                                                          | 209.3×191.7×52.9    | 229.4×201×54.7      |
| USB                              | 5V 2.1A                                                                 |                     |                     |
| DC output                        | 12V / 24V                                                               |                     |                     |
| Net weight (kg)                  | 0.38                                                                    | 0.75                | 1.16                |

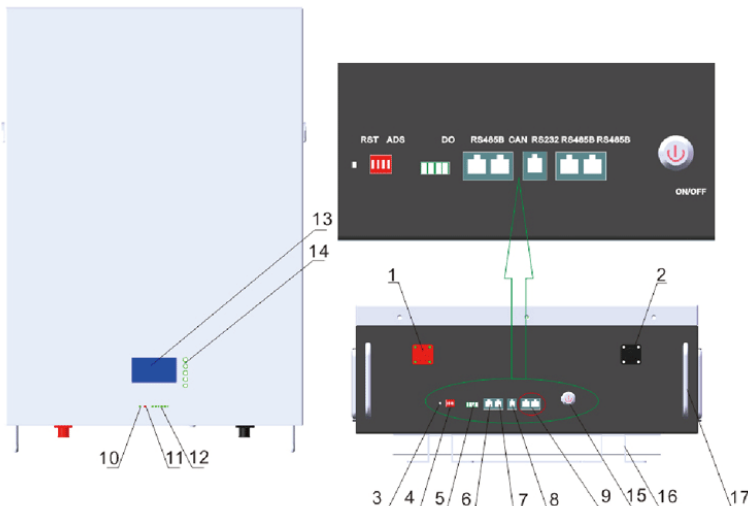
# Battery



## IBattery TJ-Battery wall series:

- 1.LiFePO4 composition – provides exceptional safety and longevity
- 2.High safety and reliability
- 3.6,000cycles/10 year service life
- 4.Consistent performance over wide temperature range
- 5.Wall-mounted, convenient installation
- 6.Integrated state-of-the-art BMS to manage and monitor battery information including voltage, current and temperature as well as balance cell charging/discharging rates
- 7.5-10 year warranty

## Product overview:



| No. | Description       | Silk-screen | Remark                                 |
|-----|-------------------|-------------|----------------------------------------|
| 1   | UES0600           | P+ P+       | Output terminal                        |
| 2   | UES0600           | P- P-       | Output terminal                        |
| 3   | port Reset button | RST         | For reset the batter                   |
| 4   | Dial switch       | ADS         | Set the address                        |
| 5   | Do                |             |                                        |
| 6   | CANbus Port       | CANbus      | CANbus and inverter connection port    |
| 7   | RS485A Port       | RS485       | RS485 and inverter connection port     |
| 8   | RS232 Port        | RS232       | RS232 communication port               |
| 9   | RS485B port       | RS485       | RS485 parallel communication interface |
| 10  | LED               | RUN         | Operation indicator                    |
| 11  | LED               | ALM         | Alarm indicator                        |
| 12  | LED               | CAPACITY    | Capacity indicator                     |
| 13  | LCD               |             |                                        |
| 14  | LCD Key           |             |                                        |
| 15  | Switch            |             |                                        |
| 16  | Bracket           |             |                                        |
| 17  | Handle            |             |                                        |

# Technical Specifications-Battery wall Series

| Model                        | TGPRO-5000W                                                            | TGPRO-7000W  | TGPRO-10000W |
|------------------------------|------------------------------------------------------------------------|--------------|--------------|
| Nominal Voltage              | 51.2V(16series)                                                        |              |              |
| Capacity                     | 100Ah                                                                  | 150Ah        | 200Ah        |
| Energy                       | 5120Wh                                                                 | 7680Wh       | 10240Wh      |
| Internal Resistance          | ≤30mΩ                                                                  |              |              |
| Cycle Life                   | ≥5000 cycles @ 80% DOD, 25℃, 0.5C<br>≥4000 cycles @ 80% DOD, 40℃, 0.5C |              |              |
| Design Life                  | ≥10 years                                                              |              |              |
| Charge Cut-off Voltage       | 56.0V±0.5V                                                             |              |              |
| Max. Continuous Work Current | 100A/150A(Can choose)                                                  |              |              |
| Discharge Cut-off Voltage    | 45V±0.2V                                                               |              |              |
| Charge Temperature           | 0℃~60℃ (Under 0℃ extra heating mechanism)                              |              |              |
| Discharge Temperature        | -20℃~60℃ (Under 0℃work with reduced capacity)                          |              |              |
| Storage Temperature          | -40℃~55℃ @ 60%±25% relative humidity                                   |              |              |
| Dimensions                   | 680 x485 x180(220)mm                                                   |              |              |
| Weight                       | Approx: 62kg                                                           | Approx: 79kg | Approx: 98kg |
| Protocol (optional)          | RS232-PC,RS485(B)-PC<br>RS485(A)-Inverter,Canbus-Inverter              |              |              |
| Certification                | UN38.3,MSDS,UL1973(Cell),IEC62619(Cell)                                |              |              |

# Battery



## Performance:

Compared with traditional lead-acid batteries, lithium battery packs are small and light.

## Advantage:

1. Environmental protection;
2. Light weight: only 30% of the weight of lead-acid batteries;
3. Long life: more than 2000 cycle life, life up to 10 years;
4. High power: provides twice the power output of lead acid batteries;
5. Temp. Range: low temperature discharge is better than lead-acid batteries.
6. Flexibility: modular design, can realize 4 series, multiple parallel.

## LFP Battery Application:



Home energy storage



Solar street light



RV



UPS



base station back up



Electric wheelchair



power boating



EV



Golf cart



Emergency

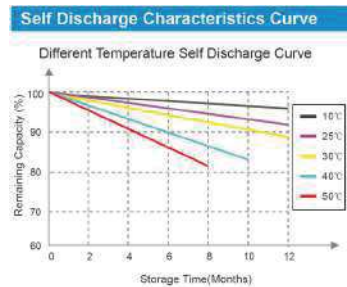
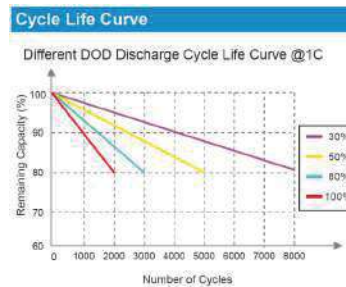
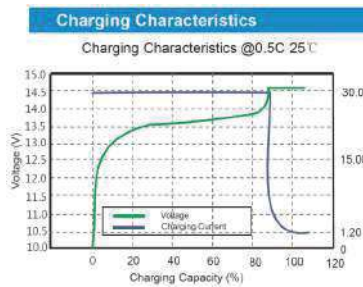
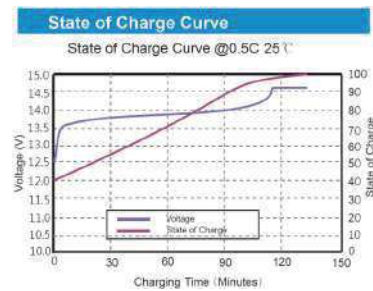
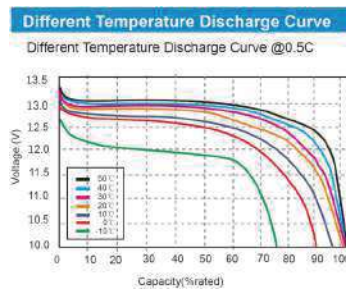
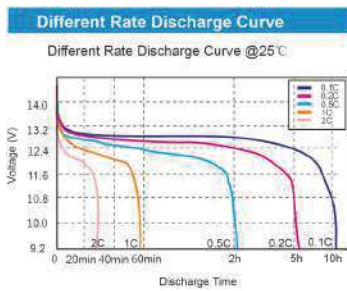


fishing

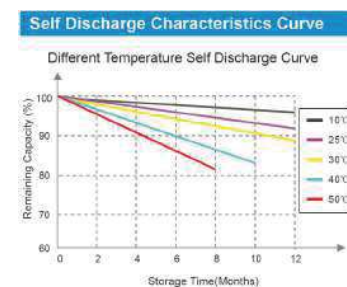
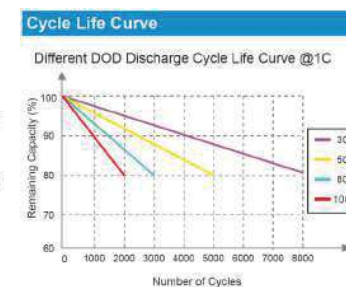
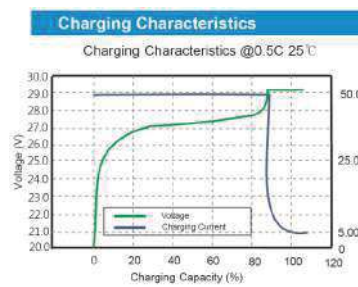
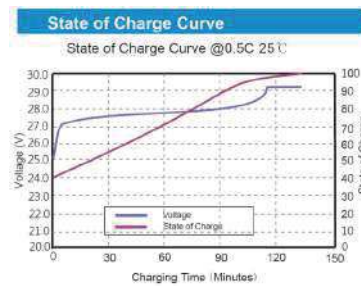
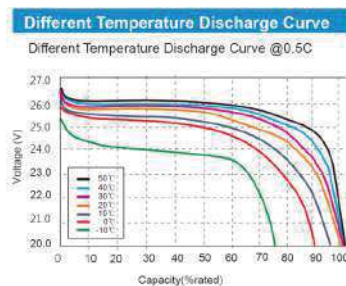
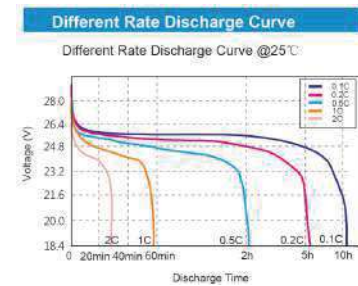


radio communication

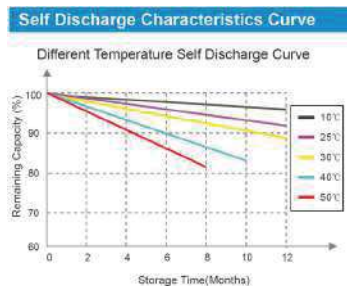
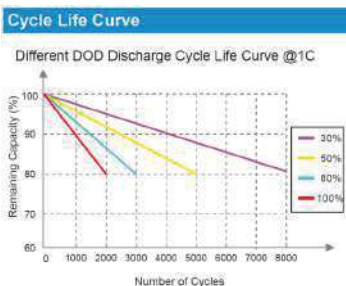
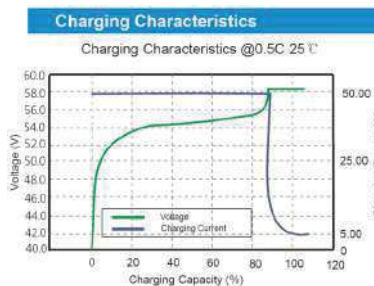
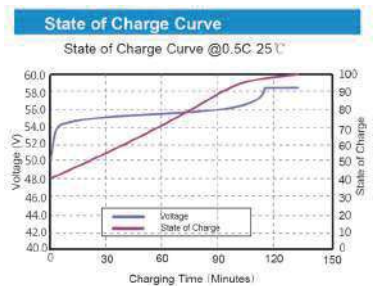
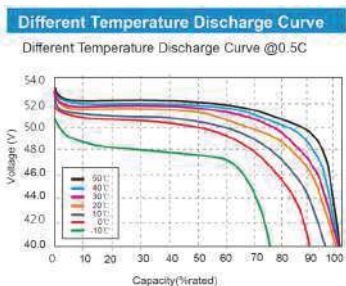
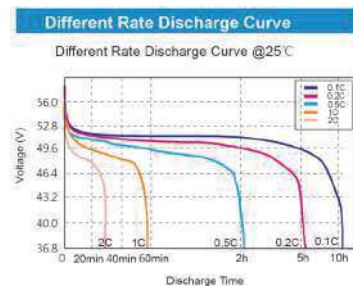
# 12V Series LFP Battery curves:



# 24V Series LFP Battery curves:



# 48V Series LFP Battery curves:



| Model           | IPower-1000W             | IPower-1.6K  | IPower-2.2K  | IPower-3K    |
|-----------------|--------------------------|--------------|--------------|--------------|
| Peak power      | 1000W                    | 1600W        | 2200W        | 3000W        |
| Rated power     | 500W                     | 800W         | 1100W        | 1500W        |
| Output voltage  | 220V±10%/110V±10%        |              |              |              |
| Output frquency | 50HZ/60HZ                |              |              |              |
| Input voltage   | 12V/24V/48V/60V optional |              |              |              |
| Size            | 195*100*60mm             | 250*110*55mm | 280*110*60mm | 290*120*70mm |
| Net weight      | 0.85kg                   | 1.1kg        | 1.45kg       | 1.65kg       |



Peakpower:1000W  
Ratedpower:500W  
Outputvoltage:220V±10%/110V±10%  
Outputfrquency:50/60HZ  
Inputvoltage:12/24/48/60V  
Size:19.5\*10\*6cm  
Packageweighi:0.85kg



Peakpower:1600W  
Ratedpower:800W  
Outputvoltage:220V±10%/110V±10%  
Outputfrquency:50/60HZ  
Inputvoltage:12/24/48/60V  
Size:25\*11\*5.5cm  
Packageweighi:1.1kg



Peakpower:2200W  
Ratedpower:1100W  
Outputvoltage:220V±10%/110V±10%  
Outputfrquency:50/60HZ  
Inputvoltage:12/24/48/60V  
Size:28\*11\*6cm  
Packageweighi:1.05kg



Peakpower:3000W  
Ratedpower:1500W  
Outputvoltage:220V±10%/110V±10%  
Outputfrquency:50/60HZ  
Inputvoltage:12/24/48/60V  
Size:29\*12\*7cm  
Packageweighi:1.25kg

## IPOWER 1-8KW PURE SINE WAVE INVERTER



- Aluminum magnesium alloy shell, light weight, good thermal conductivity can quickly reduce the temperature of parts, long-term work is not affected
- Using STM chip technology, high reliability strong impact resistance, low solder joint defect rate, reducing battery and radio frequency interference
- Up to 93% conversion rate, 30% conversion loss, 30% continuous power
- The intelligent temperature control fan makes the inverter quieter. When the temperature is  $\leq 45^{\circ}\text{C}$ , the fan stops working, when the temperature is  $\geq 45^{\circ}\text{C}$  the fan starts to work.
- Pure sine wave inverter, intelligent filter, no interference to household appliances, protection of electrical appliances

System connection diagram:





Peakpower:1000W  
Outputvoltage:110/220V  
Inputvoltage:12/24/48/60V  
Packageweighi:1kg

Ratedpower:500W  
Outputfrequency:50HZ  
Size:19\*10\*5.7cm



Peakpower:2000W  
Ratedpower:1000W  
Outputvoltage:110/220V  
Outputfrequency:50HZ  
Inputvoltage:12/24V  
Size:34.5\*17.5\*7.5cm  
Packageweighi:2kg



Peakpower:3000W  
Ratedpower:1500W  
Outputvoltage:110/220V  
Outputfrequency:50HZ  
Inputvoltage:12/24V  
Size:35\*22\*14cm  
Packageweighi:2.35kg



Peakpower:4000W  
Ratedpower:2000W  
Outputvoltage:110/220V  
Outputfrequency:50HZ  
Inputvoltage:12/24V  
Size:40\*22\*14cm  
Packageweighi:2.75kg



Peakpower:5000W  
Ratedpower:2500W  
Outputvoltage:110/220V  
Outputfrequency:50HZ  
Inputvoltage:12/24V  
Size:40\*22\*14cm  
Packageweighi:2.75kg



Peakpower:6000W  
Ratedpower:3000W  
Outputvoltage:110/220V  
Outputfrequency:50HZ  
Inputvoltage:12/24/48/60V  
Size:36.8\*22\*90cm  
Packageweighi:5kg



Peakpower:8000W  
Ratedpower:4000W  
Outputvoltage:110/220V  
Outputfrequency:50HZ  
Inputvoltage:12/24/48/60V  
Size:46.8\*22\*90cm  
Packageweighi:6.3kg

| Model            | IPower 1000W            | IPower 2000W | IPower 3000W  | IPower 4000W  | IPower 5000W  | Inverter 6000W  | Inverter 8000W |
|------------------|-------------------------|--------------|---------------|---------------|---------------|-----------------|----------------|
| Peak power       | 1000W                   | 2000W        | 3000W         | 4000W         | 5000W         | 6000W           | 8000W          |
| Rated power      | 500W                    | 1000W        | 1500W         | 2000W         | 2500W         | 2800W           | 3400W          |
| Waveform         | Pure sine wave inverter |              |               |               |               |                 |                |
| Output Voltage   | 110/220V                |              |               |               |               |                 |                |
| Output frequency | 50Hz                    |              |               |               |               |                 |                |
| Input voltage    | 12V/24V/48V/60V         | 12V/24V      |               |               |               | 12V/24V/48V/60V |                |
| Size             | 190*103*57mm            | 345*175*75mm | 350*220*140mm | 400*220*140mm | 400*220*140mm | 368*220*900mm   | 468*220*900mm  |
| Net weight       | 1KG                     | 2KG          | 2.35KG        | 2.7KG         | 2.8KG         | 5KG             | 6.3KG          |

# Ipower inverter

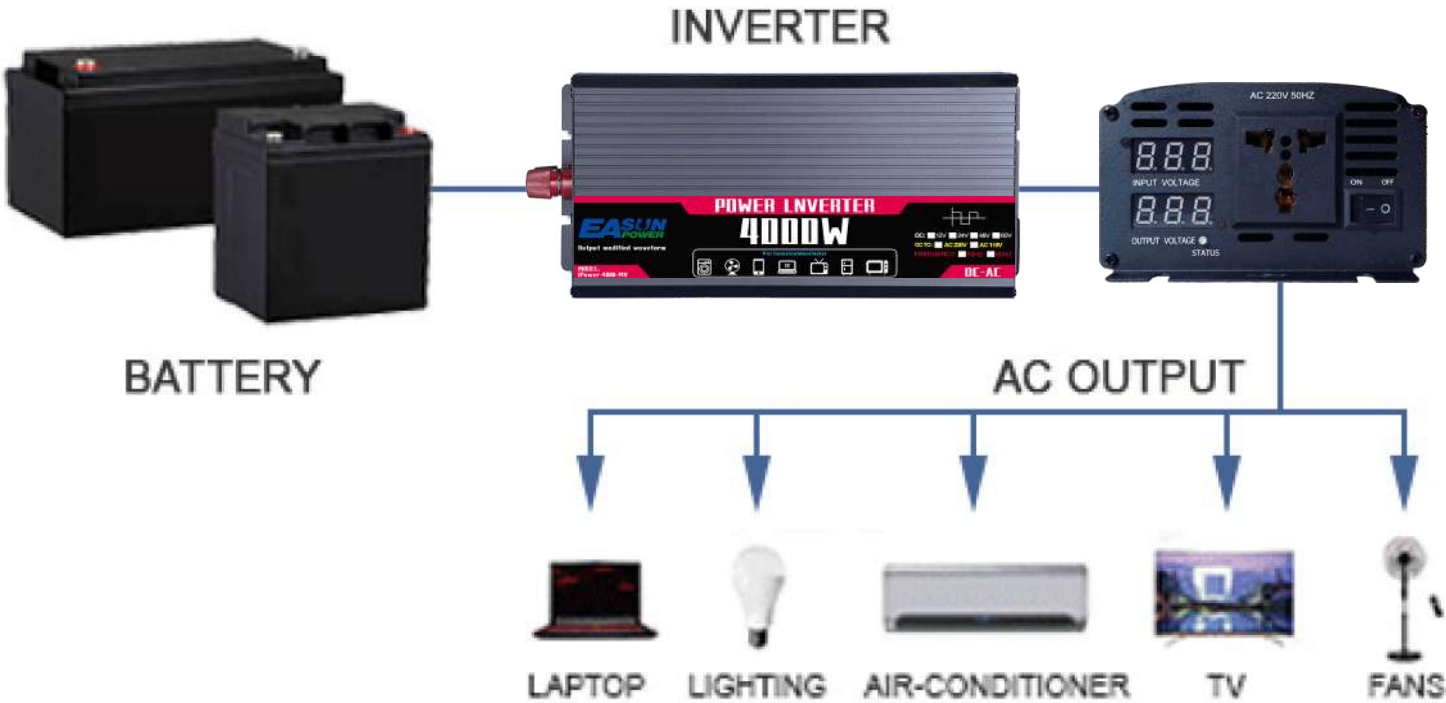


## IPOWER 1.2-5KW Modified Sine Wave Inverter

Multiple protection functions Plastic shell,non-conductive,safer External insurance,easy to replace

| Model                   | Ipowers-1.2k-MV          | Ipowers-1.8k-MV | Ipowers-2.2k-MV | Ipowers-3k-MV | Ipowers-3.5k-MV | Ipowers-4k-MV | Ipowers-5k-MV |
|-------------------------|--------------------------|-----------------|-----------------|---------------|-----------------|---------------|---------------|
| Peak power              | 1200W                    | 1800W           | 2200W           | 3000W         | 3500W           | 4000W         | 5000W         |
| Rated power             | 550W                     | 900W            | 1100W           | 1300W         | 1600W           | 1900W         | 2300W         |
| Waveform Output Voltage | Modified sine wave       |                 |                 |               |                 |               |               |
| Output voltage          | 220V±10%/110V±10%        |                 |                 |               |                 |               |               |
| Output frequency        | 50HZ/60HZ                |                 |                 |               |                 |               |               |
| Input voltage           | 12V/24V/48V/60V Optional |                 |                 |               |                 |               |               |
| Size                    | 163*100*55mm             | 182*107*62mm    | 223*107*62mm    | 232*107*62mm  | 250*120*70mm    | 271*150*70mm  | 320*150*90mm  |
| Net weight              | 700g                     | 850g            | 950g            | 1100g         | 1350g           | 1500g         | 2300g         |

## System connection diagram:





Peak power:1200W  
Rated power:550W  
Output voltage:110V/220V  
Output frequency:50/60HZ  
Input voltage:12/24/48/60V  
Size:163\*100\*55mm  
Package weight:700g



Peak power:1800W  
Rated power:900W  
Output voltage:110V/220V  
Output frequency:50/60HZ  
Input voltage:12/24/48/60V  
Size:182\*107\*62mm  
Package weight:850g



Peak power:2200W  
Rated power:1100W  
Output voltage:110V/220V  
Output frequency:50/60HZ  
Input voltage:12/24/48/60V  
Size:223\*107\*62mm  
Package weight:950g



Peak power:3000W  
Rated power:1500W  
Output voltage:110V/220V  
Output frequency:50/60HZ  
Input voltage:12/24/48/60V  
Size:232\*100\*62mm  
Package weight:1100g



Peak power:3500W  
Rated power:1600W  
Output voltage:110V/220V  
Output frequency:50/60HZ  
Input voltage:12/24/48/60V  
Size:250\*120\*70mm  
Package weight:1350g



Peak power:4000W  
Rated power:1900W  
Output voltage:110V/220V  
Output frequency:50/60HZ  
Input voltage:12/24/48/60V  
Size:271\*150\*70mm  
Package weight:1500g



Peak power:5000W  
Rated power:2300W  
Output voltage:110V/220V  
Output frequency:50/60HZ  
Input voltage:12/24/48/60V  
Size:320\*150\*90mm  
Package weight:2300g

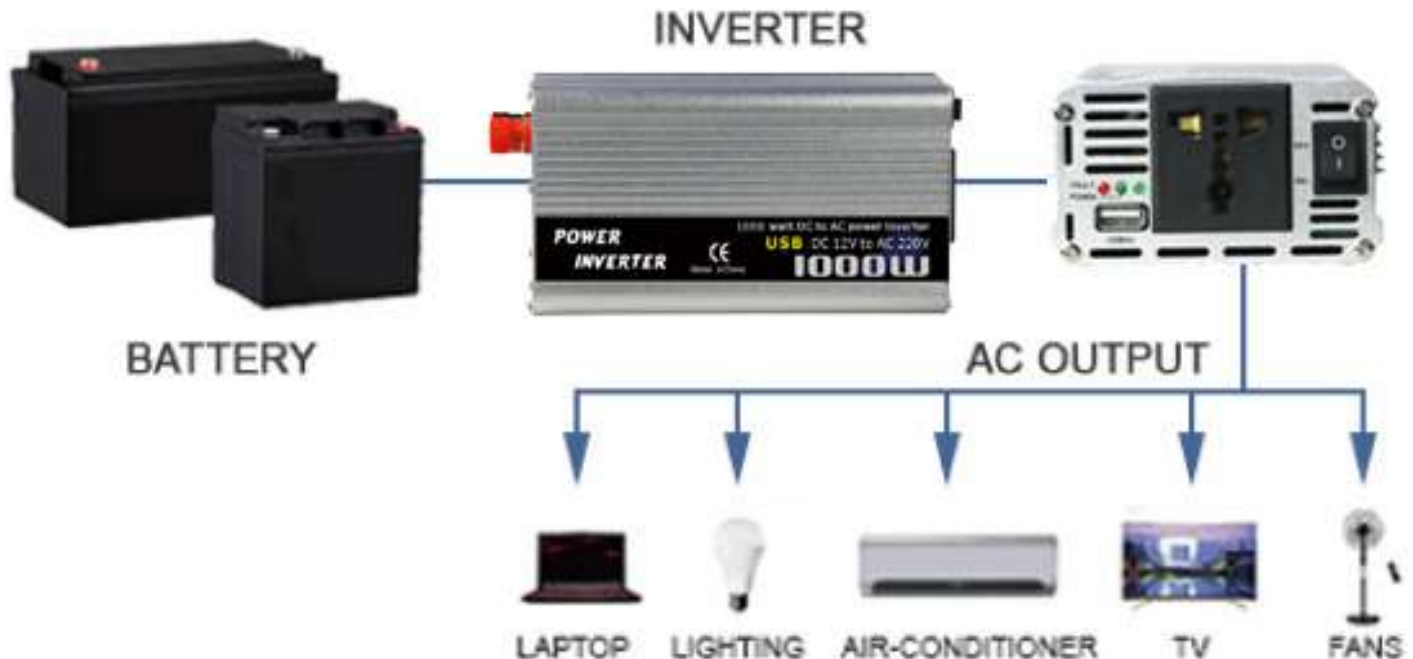
# IPOWER inverter

## IPOWER 1-2KW Modified Sine Wave Inverter



- Suitable for nominal power home appliance and equipments, such as phone, computer, lamp, camera, TV, shaver, CD, fan and so on
- With small, novel structure and appearance.
- Equipped with national, American, European and Australian standard plug.
- With over 86% of conversion efficiency.
- Six protection functions (overheat, over voltage, under voltage, overload, over current etc)
- Adopting special process transformer, making the inverters work more stable and reliable, and with more load capacity etc.

System connection diagram:



# Accessories

## MC4:



MC4 connector 5 Pairs



MC4 connector 10 Pairs



MC4 2T



MC4 3T



MC4 4T

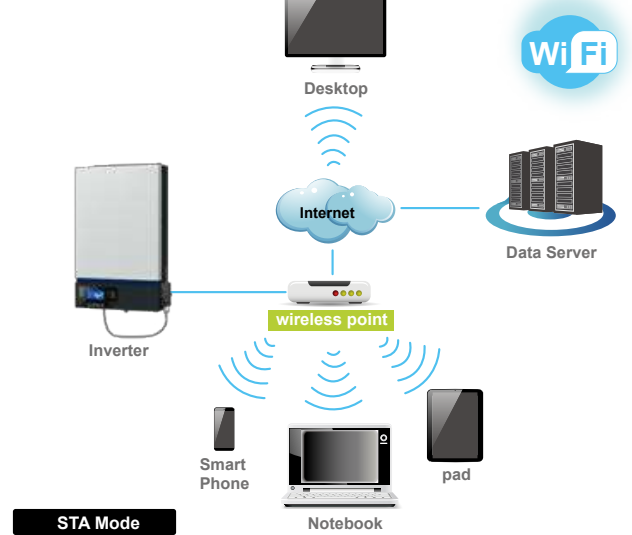
## Wifi Module:



Embedded magnet  
attracted to the inverter



AP Mode



STA Mode

## Parallel pcb board:



# Accessories

## Voltage Converter



## Wifi Port



Plug Pro Series pluggable data logger can support Wi-Fi, GPRS, 4G, NB-IOT and other communication modes, through DB9, aviation head, RJ-45 and other terminal connection modes. Perfect compatibility with all brands of inverter, energy storage machine and other equipment. Support remote control, debugging, upgrading and other functions, and provide users with remote, low-cost, visual, remote operation monitoring scheme.



Plug and play  
no wiring required



## Energy storage industry application

Energy storage monitoring platform is a monitoring and management system for energy storage machine. The data of energy storage equipment is collected in all directions, analyzed with big data and processed with cloud platform technology. It can provide guidance for peak shaving, peak load regulation, frequency modulation and voltage regulation, so as to effectively smooth the power output and reduce the impact on the grid output as planned.



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To expand global presence

## Local Support

To offer better service

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Email: [Avy@easunpower.com](mailto:Avy@easunpower.com)