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Version 2026-04-15



**2026**

# SOLAR ENERGY STORAGE SOLUTIONS

Make life full of hope, make the world better

the Americas Version

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# ABOUT US

## Guangzhou Felicity Solar Technology Co., Ltd.

Founded in 2007 and headquartered in Guangzhou, China, we employ over 2,000 staff and occupy 85,000+ square meters. We integrate R&D, manufacturing, marketing, and sales, and have established localized warehousing networks, after-sales service centers, and overseas branches. We are a trusted provider with 19 years of industry expertise, offering off-grid and hybrid solar energy storage solutions for residential, commercial, and industrial needs.



VR Factory Tour

With a R&D team of over 400 professionals, a 3,000 sqm R&D center, and more than 10% of annual investment dedicated to technology development, we had secured over 170 patents in core technologies. Through our 50+ global branches, we connect with users across 150+ countries and areas, delivering a comprehensive product line that includes inverters, LiFePO4 batteries, all-in-one systems and solar controllers. We are committed to bringing hope and a brighter future to the world through solar energy technology, both now and in the future.



**19**

years Industry Expertise

**170+**

Patented Technologies

**50+**

Overseas Branches

**150+**

Countries & Regions Market

**10%+**

Technical Investment

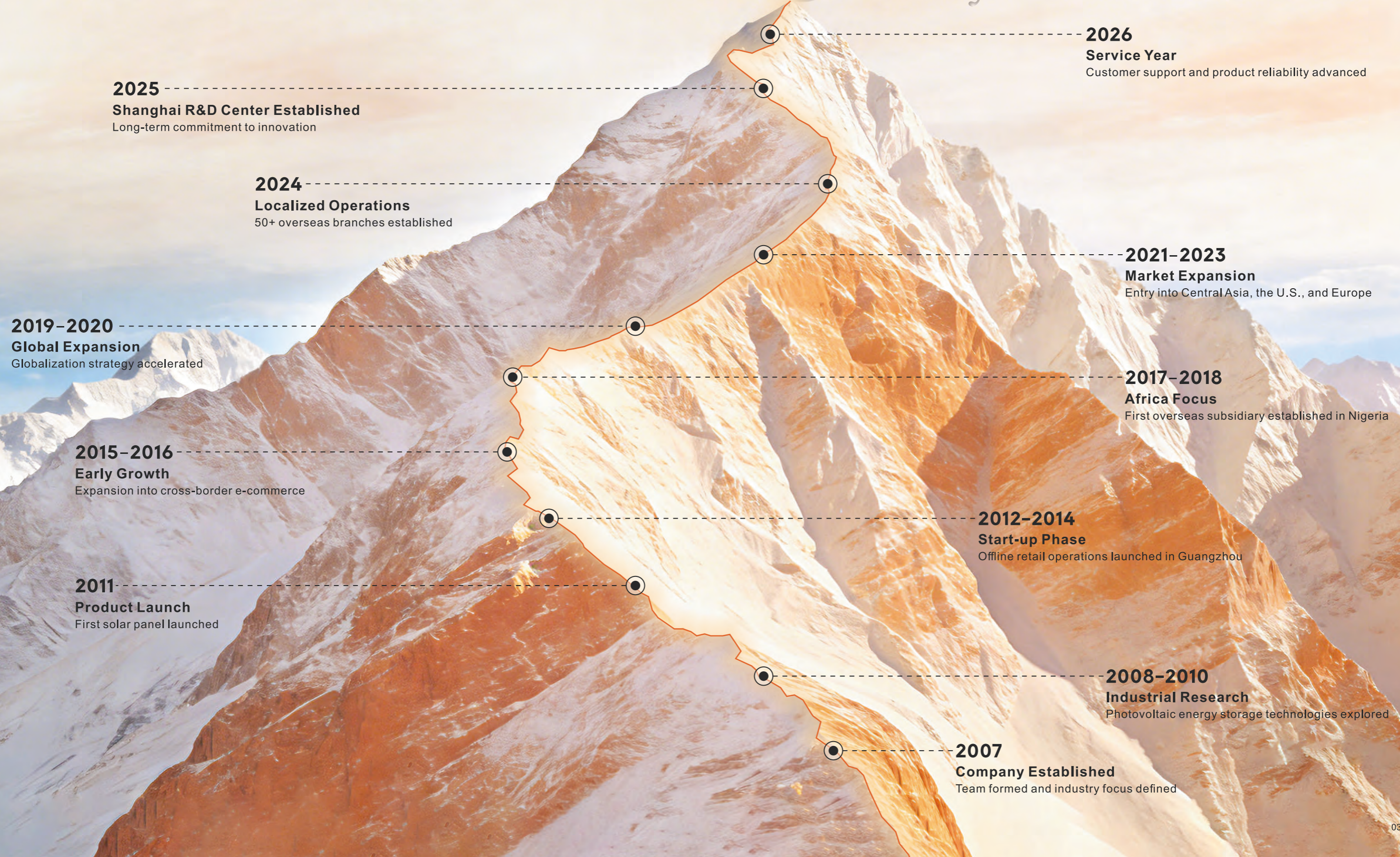
**400+**

R&D Teammates

# FELICITYSOLAR



# COMPANY HISTORY



**2026**  
**Service Year**  
Customer support and product reliability advanced

**2025**  
**Shanghai R&D Center Established**  
Long-term commitment to innovation

**2024**  
**Localized Operations**  
50+ overseas branches established

**2021-2023**  
**Market Expansion**  
Entry into Central Asia, the U.S., and Europe

**2019-2020**  
**Global Expansion**  
Globalization strategy accelerated

**2017-2018**  
**Africa Focus**  
First overseas subsidiary established in Nigeria

**2015-2016**  
**Early Growth**  
Expansion into cross-border e-commerce

**2012-2014**  
**Start-up Phase**  
Offline retail operations launched in Guangzhou

**2011**  
**Product Launch**  
First solar panel launched

**2008-2010**  
**Industrial Research**  
Photovoltaic energy storage technologies explored


**2007**  
**Company Established**  
Team formed and industry focus defined

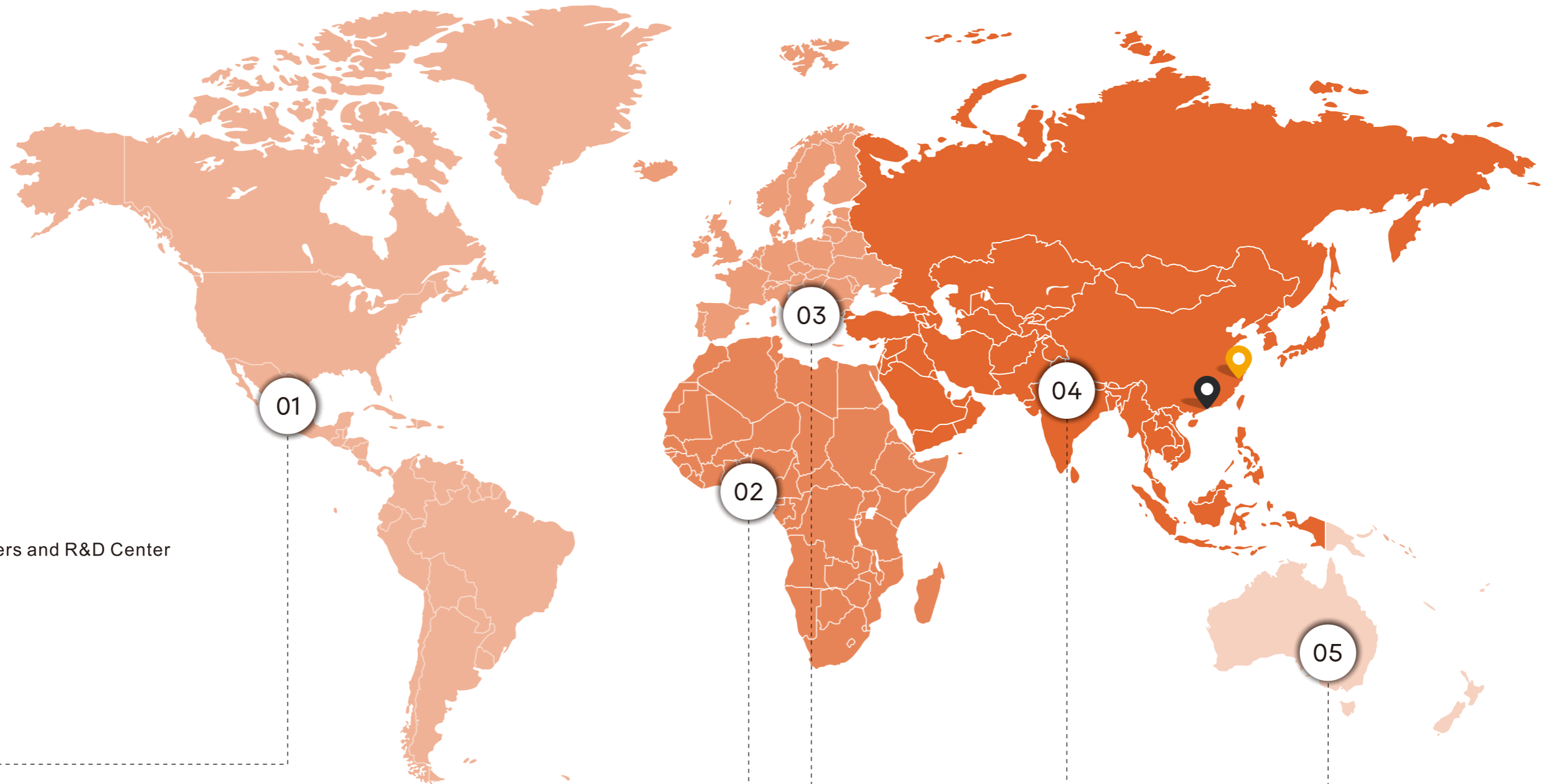
# WORLDWIDE BUSINESS PRESENCE

- Green power
- One-stop solutions
- Service first
- On-time support
- Local service
- Area-focused
- Reliable products



 Guangzhou Headquarters and R&D Center

 Shanghai R&D Center



01

## the America

Market Coverage **35**  
After-sales Centers **9**  
Offline Stores **26**

02

## Africa

Market Coverage **54**  
After-sales Centers **37**  
Offline Stores **118**

03

## Europe

Market Coverage **44**  
After-sales Centers **3**  
Offline Stores **8**

04

## Asia

Market Coverage **49**  
After-sales Centers **21**  
Offline Stores **46**

05

## Oceania

Market Coverage **14**  
After-sales Centers **1**  
Offline Stores **4**

# WHY CHOOSE US



## Product Reliability

Regional Compatibility: adapted to different grid voltages across regions.

Functions: smart management, easy for after-sales servicing, simplified system setup.

Performance: high stability, safety, durability, and strong environmental adaptability.



## Standardized Manufacturing

Smart Production: high-efficiency production lines with automated equipments.

Standardized Testing – strict testing procedures for product reliability.

Quality Management – comprehensive quality control guarantees high-standard products.



## Pricing Policy

Stable Pricing – consistent pricing to support long-term cooperation.

Price Protection – safeguarding partner interests in the market.

Regional Protection – ensuring fair market competition within designated areas.



## Local Service

Service Centers – fast, efficient, and professional after-sales support.

Offline Stores – face-to-face consultation and system recommendations.

Warehouses – sufficient inventory for fast and convenient delivery.

SUPERIORITY



# INVERTER COMPATIBILITY LIST



# Off-grid High-frequency Solar Inverter

IVCM-LV Series | IVCM1012/2024-LV



## Specifications

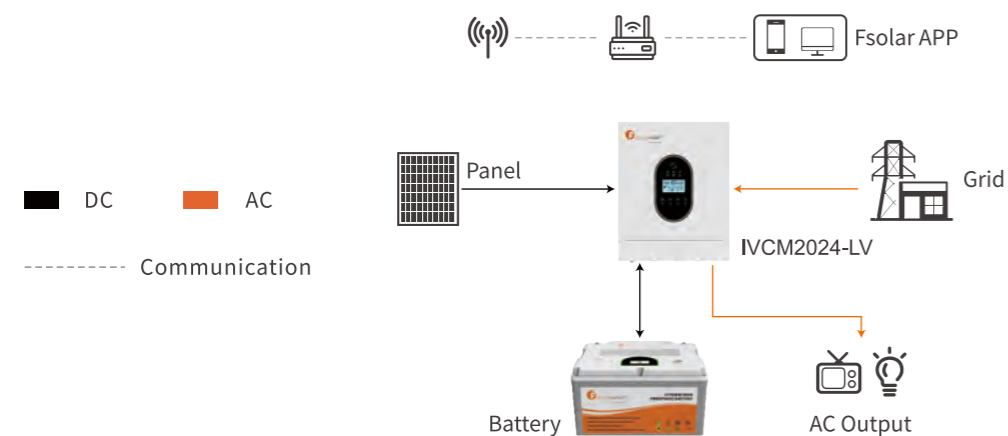
Model	IVCM1012-LV	IVCM2024-LV
<b>Line Mode Specifications</b>		
Rated Output Power	1000VA/1000W	2000VA/2000W
Nominal DC Input Voltage	12V	24V
Input Voltage Wave form	Sinusoidal (Utility or Generator)	
Nominal Input Voltage	110/120Vac	
Nominal Input Frequency	50Hz/ 60Hz(Auto Detection)	
Output Voltage Waveform	As Same as Input Waveform	
Max. Bypass Overload Current	14A	24A
Max. Inverter/Rectifier Current	10A/1000W	20A/2000W
<b>Utility Charge Mode Specifications</b>		
Nominal Input Voltage	110/120Vac	
Input Voltage Range	65-140Vac	
Nominal Output Voltage	Dependent on Battery Type	
Max. Charge Current	10A	15A
Over Charge Protection	Yes	
<b>Solar Charging &amp; Grid Charging</b>		
Max. PV Open Circuit Voltage	105V	145V
Operating Voltage Range	15-90V	30-120V
Max. Input Power	800W	1600W
Max. Solar Charging Current	60A	
Max. Charging Current(PV+Grid)	70A	75A
Max. Input Current	35A	
<b>General Specifications</b>		
Operating Temperature	-10°C~55°C	
Range Storage Temperature	-15°C~60°C	
Net Weight(KG)	5.5KG	6.5KG
Product Size (D*W*H)	340x248x107MM	340x290x124MM
Package Dimension (D*W*H)	422x330x181MM	422x372x198MM

\*Refer to Felicitysolar's Warranty Policy for applicable conditions.

## Features

- Support parameters setting via LCD screen (input voltage/charging current/charge mode).
- Built-in MPPT solar charge controller.
- Overload /over temperature/ short circuit protection.
- Auto restart while AC is recovering.
- Compatible with mains voltage or generator power.
- Cold start function.

## System Diagram



# Off-grid High-frequency Solar Inverter

IVCM Series | IVCM1612P1G2-LV

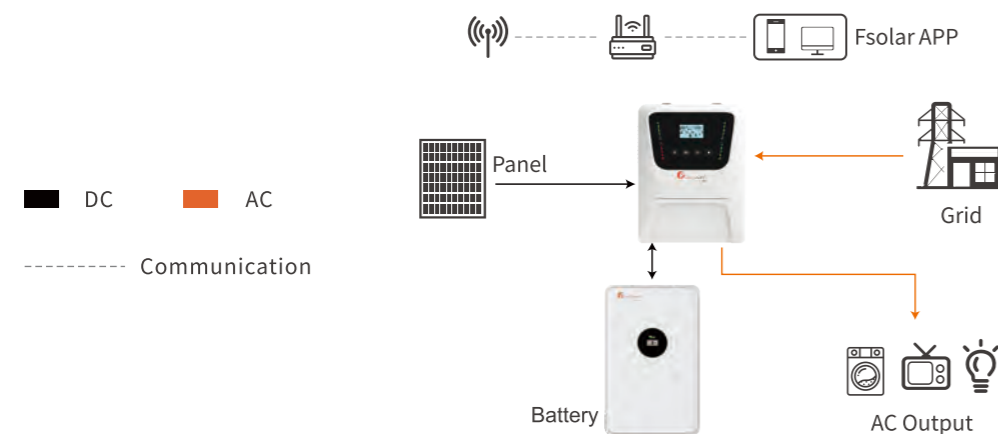
AC-120V/127V



## Features

- Max. 120A charging current.
- Compatible with mains voltage or generator power.
- Built-in MPPT solar charge controller.
- Support parameters setting via LCD screen (input voltage/charging current/charge mode).
- Build-in WiFi for real-time monitoring.
- Optional Working Modes Setting: Backup mode / intelligent mode / economic mode.
- Supports battery-free mode and silent mode.
- Cold start function.

## System Diagram



## Specifications

Model	IVCM1612P1G2-LV
<b>Line Mode Specifications</b>	
Rated output Power	1600VA/1600W
Input Voltage waveform	Sinusoidal (utility or generator)
Nominal Input Voltage	120Vac/127Vac
Nominal Input Frequency	50Hz/ 60Hz
Output Voltage Waveform	As same as input waveform
Output Short Circuit Protection	Battery mode: Electronic Circuits
Transfer Time (Single unit)	4ms typical (UPS); 20ms typical (Appliances)
Max Bypass Overload Current	25A
Max Inverter/Rectifier Current	25A/3000W
<b>Utility Charge Mode Specifications</b>	
Nominal Input Voltage	120Vac/127Vac
Input Voltage Range	65~140Vac
Max Charge Current	120A
Charge Current Regulation	0~120A (Adj 5A)
Over Charge Protection	Yes
<b>Solar Charging &amp; Grid Charging</b>	
Max PV Open Circuit Voltage	105V
MPPT Voltage Range	30~90V
Max Input Power	800W
Max Battery Charging Current	60A
Max Charging Current (PV + Grid)	120A
Max Shorted Current	20A
<b>General Specifications</b>	
Operating Temperature	-10°C ~55°C
Range Storage Temperature	-15°C ~60°C
Net Weight (Kg)	6.5kg
Product Size (D*W*H)	356x276x128MM
Package Dimension (D*W*H)	438x358x202MM

# Off-grid High-frequency Solar Inverter

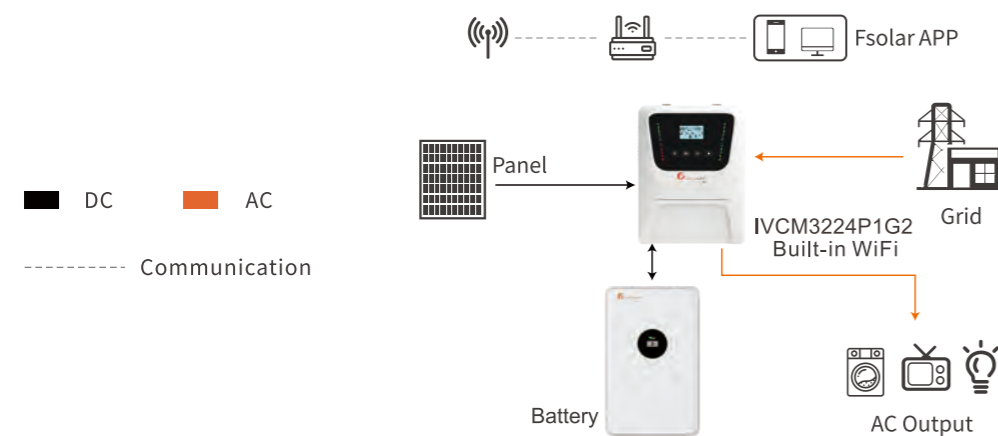
IVCM Series | IVCM2012/3224P1G2



## Features

- Max. 120A charging current.
- Compatible with mains voltage or generator power.
- Built-in MPPT solar charge controller.
- Support parameters setting via LCD screen (input voltage/charging current/charge mode).
- Build-in WiFi for real-time monitoring.
- Optional Working Modes Setting: Backup mode / intelligent mode / economic mode.
- Supports battery-free mode and silent mode.
- Cold start function.

## System Diagram



## Specifications

Model	IVCM2012P1G2	IVCM3224P1G2
<b>Line Mode Specifications</b>		
Rated Output Power	2000VA/2000W	3200VA/3200W
Input Voltage Waveform	Sinusoidal (utility or generator)	
Nominal Input Voltage	230Vac	
Low Line Voltage Disconnect	170Vac±7V(UPS);90Vac±7V(Appliances)	
Low Loss Voltage Re-connect	180Vac±7V(UPS);100Vac±7V(Appliances)	
High Line Voltage Disconnect	280Vac±7V	
High Line Voltage Re-connect	270Vac±7V	
Nominal Input Frequency	50Hz/60Hz	
Low Line Frequency Disconnect	40Hz±1	
Low Line Frequency Re-connect	42Hz±1	
High Line Frequency Disconnect	65Hz±1	
High Line Frequency Re-connect	63Hz±1	
Output Voltage Waveform	As same as input waveform	
Output Short Circuit Protection	Battery mode: Electronic Circuits	
Transfer Time (Single Unit)	4ms typical (UPS); 20ms typical (Appliances)	
Max Bypass Overload Current	25A	
Max Inverter/Rectifier Current	15A/3450W	25A/5750W
<b>Utility Charge Mode Specifications</b>		
Nominal Input Voltage	230Vac	
Input Voltage Range	90-280Vac	
Nominal Output Voltage	Dependent on Battery Type	
Max. Charge Current	120A	
Charge Current Regulation	0-120A (Adj 5A)	
Over Charge Protection	Yes	
<b>Solar Charging &amp; Grid Charging</b>		
Max. PV Open Circuit Voltage	105V	
MPPT Voltage Range	30-90V	
Max. Input Power	800W	1600W
Max. Solar Charging Current	60A	
Max. Charging Current(PV+Grid)	120A	
<b>General Specifications</b>		
Operating Temperature	-10°C~55°C	
Range Storage Temperature	-15°C~60°C	
Net Weight(KG)	6.5KG	
Product Size (D*W*H)	356x276x128MM	
Package Dimension (D*W*H)	438x358x202MM	

\*Refer to Felicitysolar's Warranty Policy for applicable conditions.

# Off-grid High-frequency Solar Inverter

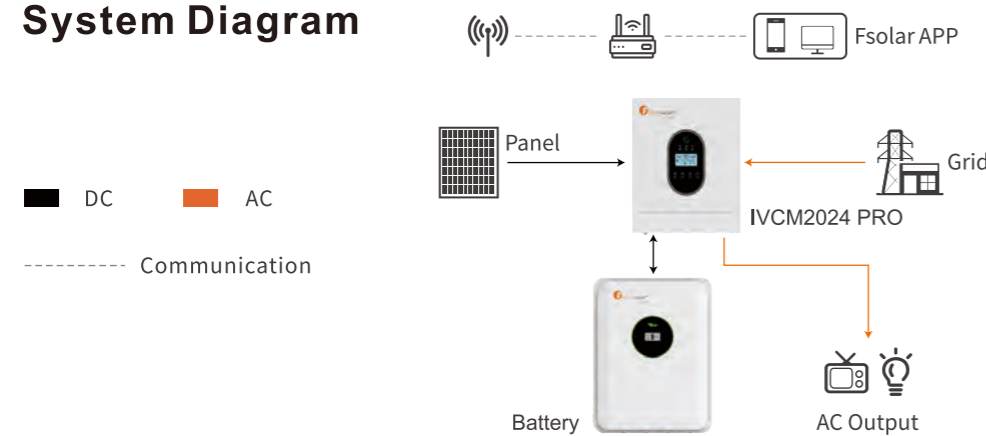
IVCM-PRO Series | IVCM1012/2024/3024PRO



## Features

- Enables real-time monitoring via WiFi.
- Depending on the model, Turbo mode can be enabled in APL mode to use up to three times the maximum rated load.
- Support parameters setting via LCD screen (input voltage/charging current/charge mode).
- Overload / overtemperature / short circuit / PV string input reverse polarity protection.
- Compatible with mains voltage or generator power.
- Built-in MPPT solar charge controller.
- Auto restart while AC is recovering.
- Cold start function.

## System Diagram



## Specifications

Model	IVCM1012 PRO	IVCM2024 PRO	IVCM3024 PRO
<b>Line Mode Specifications</b>			
Rated Output Power	1000VA/1000W	2000VA/2000W	3000VA/3000W
Instant Output Power (Turbo Mode)	3000W	4000W	4500W
Nominal DC Input Voltage	12V	24V	24V
Input Voltage Wave form	Sinusoidal (Utility or Generator)		
Nominal Input Voltage	230Vac		
Nominal Input Frequency	50Hz/ 60Hz(Auto Detection)		
Max. Bypass Overload Current	10A	15A	30A
Max. Inverter/Rectifier Current	5A/1000W	10A/2000W	15A/3000W
<b>Utility Charge Mode Specifications</b>			
Nominal Input Voltage	230Vac		
Input Voltage Range	90-280Vac		
Nominal Output Voltage	Dependent on Battery Type		
Max. Charge Current	20A	20A	30A
Charge Current Regulation	10-20A (Adj 10A)	20-30A (Adj 10A)	20-30A (Adj 10A)
Over Charge Protection	Yes		
<b>Solar Charging &amp; Grid Charging</b>			
Max. PV Open Circuit Voltage	105V	145V	145V
Operating Voltage Range	15-90V	30-120V	30-120V
Max. Input Power	800W	1600W	1600W
Max. Solar Charging Current	60A		
Max. Charging Current(PV+Grid)	80A	80A	90A
Max. Input Current	35A		
<b>General Specifications</b>			
Operating Temperature	-10°C~55°C		
Range Storage Temperature	-15°C~60°C		
Net Weight(KG)	5.5KG	6.5KG	6.5KG
Product Size (D*W*H)	340x248x107MM	340x248x107MM	340x290x124MM
Package Dimension (D*W*H)	422x330x181MM	422x330x181MM	422x372x198MM

\*Refer to FelicitySolar's Warranty Policy for applicable conditions.

# Off-grid High-frequency Solar Inverter

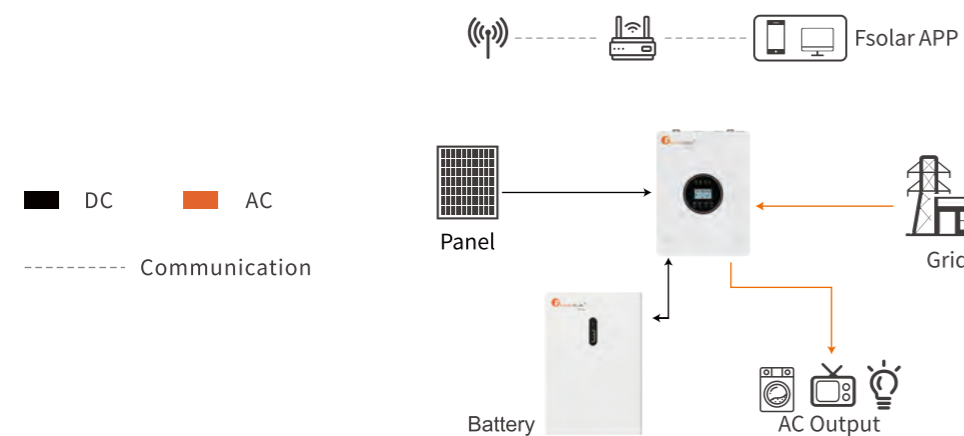
IVEM-LV Series | IVEM3048/5048-LV



## Features

- Support parameters setting via LCD screen (input voltage/charging current/charge mode).
- Compatible with mains voltage or generator power.
- Built-in MPPT solar charge controller.
- Lithium battery activation function.
- Auto restart while AC is recovering.
- Inverter running without battery.

## System Diagram



## Specifications

Model	IVEM3048-LV	IVEM5048-LV
<b>Line Mode Specifications</b>		
Rated Output Power(VA)	3000VA	5000VA
Rated Output Power(W)	3000W	5000W
Nominal DC Input Voltage	48V	48V
Input Voltage Waveform	Sinusoidal (Utility or Generator)	
Nominal Input Voltage	110/120Vac	
Nominal Input Frequency	50Hz / 60Hz (Auto Detection)	
Max. Bypass Overload Current	40A	63A
Max. Inverter/Rectifier Current	30A/3000W	50A/5000W
<b>Utility Charge Mode Specifications</b>		
Nominal Input Voltage	110Vac	
Input Voltage Range	65-140Vac	
Nominal Output Voltage	Dependent on BatteryType	
Max. Charge Current	60A	100A
<b>Solar Charging &amp; Grid Charging</b>		
Max. PV Open Circuit Voltage	500V	
PV Voltage Range	90V-500V	
Max. PV Input Power	4000W	6000W
Max. PV Charging Current	60A	100A
Max. Charging Current(PV+Grid)	60A	100A
Max. PV Input Current	15A	20A
Min. Startup Voltage	100V	
<b>Inverter Mode Specifications</b>		
Output Voltage Waveform	Pure Sine Wave	
Nominal Output Voltage	110Vac+5%	
Nominal Output Frequency(Hz)	50±0.3Hz/60Hz±0.3Hz(Adjustable)	
Parallel Capability	No	Yes, Up to 6 Units
Peak Efficiency	93%	
Over-Load Protection(SMPS load)	5.5s@≥150% Load; 10.5s @105% ~150%Load	
Surge Rating	2*Rated Power for 5s	
Capable of Starting Electric	Yes	
Output Short Circuit Protection	Yes	
<b>General Specifications</b>		
Operating Temperature	-10°C~+50°C	
Range Storage Temperature	-15°C~+60°C	
Net Weight(KG)	11.9KG	13.1KG
Gross Weight(KG)	14.2KG	15KG
Product Dimension(MM)	440*328*130MM	460*343*137MM
Package Dimension(MM)	542*430*224MM	562*443.5*231MM
Certification	CE-EMC、IEC 62109-1/2、Colombia RETIE	

\*Refer to Felicitysolar's Warranty Policy for applicable conditions.

# Off-grid High-frequency Solar Inverter

IVEM-SALV Series | IVEM5048-SALV

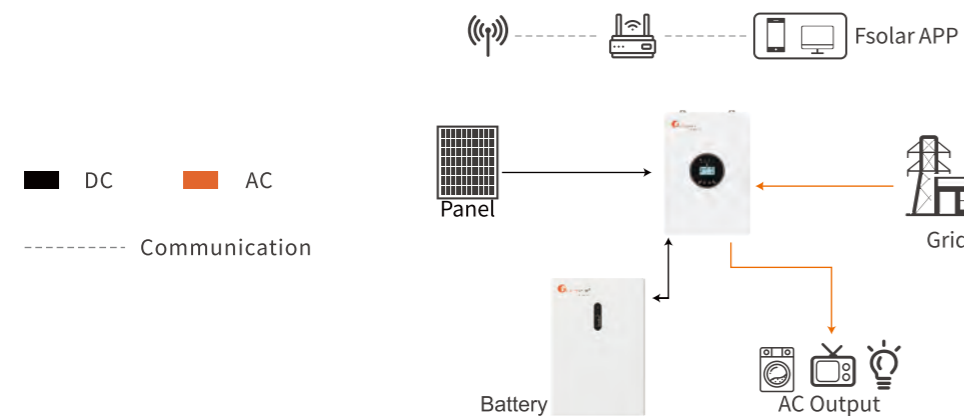


\* Spanish and portuguese versions available

## Features

- Support parameters setting via LCD screen (input voltage/charging current/charge mode).
- Compatible with mains voltage or generator power.
- Built-in MPPT solar charge controller.
- Intelligent fan control for quieter operation.
- Lithium battery activation function.
- Auto restart while AC is recovering.
- Inverter running without battery.

## System Diagram



## Specifications

Model	IVEM5048-SALV
<b>Line Mode Specifications</b>	
Rated Output Power(VA)	5000VA
Rated Output Power(W)	5000W
Nominal DC Input Voltage	48V
Input Voltage Waveform	Sinusoidal (Utility or Generator)
Nominal Input Voltage	127Vac
Nominal Input Frequency	60Hz
Pass Through Without Battery	Yes
Max. Bypass Overload Current	63A
Max. Inverter/Rectifier Current	50A/5000W
<b>Utility Charge Mode Specifications</b>	
Nominal Input Voltage	127Vac
Input Voltage Range	65-140Vac
Nominal Output Voltage	Dependent on battery type
Max. Charge Current	100A
Charging Current Regulation Range	10-100A (Adjustable unit is 1A)
Overload Protection	Yes
<b>Solar Charging &amp; Grid Charging</b>	
Max. PV Open Circuit Voltage	500V
PV Voltage Range	120V-450V
Max. PV Input Power	6000W
Max. PV Charging Current	100A
Max. Charging Current(PV+Grid)	100A
Max. PV Input Current	20A
Min. Startup Voltage	100V
<b>Inverter Mode Specifications</b>	
Output Voltage Waveform	Pure Sine Wave
Nominal Output Voltage	127Vac+5%
Nominal Output Frequency(Hz)	60Hz±0.3Hz
Parallel Capability	Yes, Up to 6 Units
Peak Efficiency	93%
Over-Load Protection(SMPS load)	5.5s@≥150% Load; 10.5s @105% ~150%Load
Surge Rating	2* Rated Power for 5s
Capable of Starting Electric	Yes
Output Short Circuit Protection	Yes
<b>General Specifications</b>	
Operating Temperature	-10°C~+50°C
Range Storage Temperature	-15°C~+60°C
Ingress Protection	IP21
Net Weight(KG)	14.9KG
Gross Weight(KG)	17.3KG
Product Dimension(MM)	487.4*343*137MM
Package Dimension(MM)	589*443*231MM

\*Refer to Felicitysolar's Warranty Policy for applicable conditions.

# Off-grid High-frequency Solar Inverter

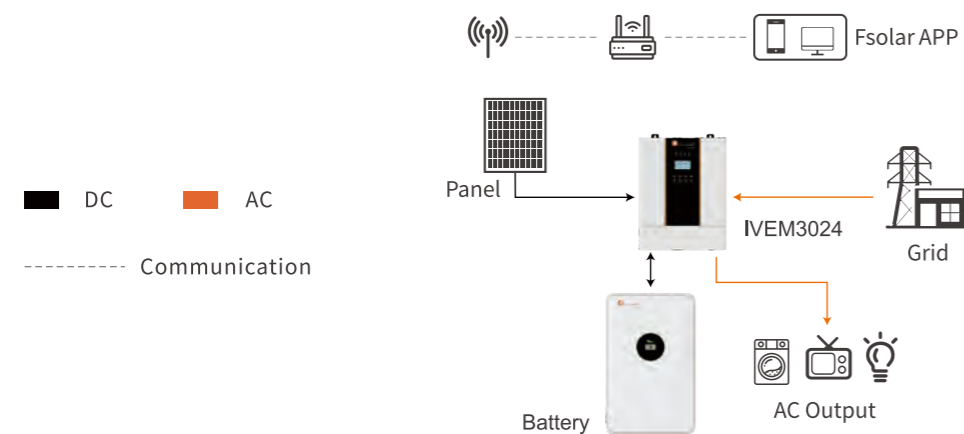
IVEM Series | IVEM3024/5048



## Features

- Supports parameters setting via LCD screen.  
(input voltage/charging current/charge mode).
- Compatible with mains voltage or generator power.
- Built-in MPPT solar charge controller.
- Lithium battery activation function.
- Auto restart while AC is recovering.
- Inverter running without battery.
- Cold start function.

## System Diagram



## Specifications

Model	IVEM3024	IVEM5048
<b>Line Mode Specifications</b>		
Rated Output Power(VA)	3000VA	5000VA
Rated Output Power(W)	3000W	5000W
Nominal DC Input Voltage	24V	48V
Nominal Input Voltage	230Vac	
Max. AC Input Voltage	280Vac	
Nominal Input Frequency	50Hz / 60Hz (Auto Detection)	
Efficiency(Line Mode)	>95% (Rated R Load, Battery Full Charged)	
Pass Through Without Battery	Yes	
<b>Utility Charge Mode Specifications</b>		
Nominal Input Voltage	230Vac	
Input Voltage Range	90-280Vac	
Max. Charge Current	100A	
Over Charge Protection	Yes	
<b>Solar Charging &amp; Grid Charging</b>		
Max. PV Open Circuit Voltage	500V	
PV Voltage Working Range	120V-500V	
Max. Input Power	4000W	6000W
Max. Solar Charging Current	100A	100A
Max. Charging Current(PV+Grid)	100A	100A
Max. Input Current	15A	20A
Min. Startup Voltage	125V	
<b>Inverter Mode Specifications</b>		
Output Voltage Waveform	Pure Sine Wave	
Nominal Output Voltage	230Vac+5%	
Nominal Output Frequency(Hz)	50±0.3Hz/60Hz±0.3Hz(Adjustable)	
Parallel Capability	No	Yes, Up to 12 Units
Peak Efficiency	93%	
Over-Load Protection(SMPS load)	5.5s@≥150% Load; 10.5s @105%~150%Load	
Surge Rating	2* Rated Power for 5s	
Capable of Starting Electric	Yes	
Output Short Circuit Protection	Yes	
<b>General Specifications</b>		
Operating Temperature	0°C~55°C	
Range Storage Temperature	-15°C~60°C	
Net Weight(KG)	10.8KG	13.2KG
Product Dimension(MM)	395*295*129MM	415*320*129MM
Package Dimension(MM)	472*372*202MM	494*399*202MM
Certification	CE-EMC、IEC 62109-1/2、IEC 63027	CE-EMC、IEC 62109-1/2

\*Refer to Felicitysolar's Warranty Policy for applicable conditions.

# Off-grid High-frequency Solar Inverter

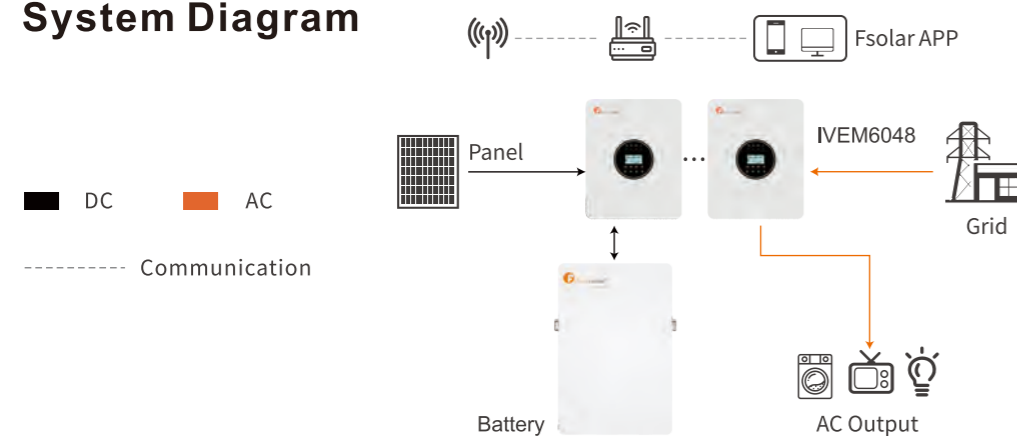
IVEM Series | IVEM6048



## Features

- Wide PV voltage input range (90VDC-500VDC).
- Supports up to 12 units in parallel (Battery must be connected).
- Support parameters setting via LCD screen (input voltage/charging current/charge mode).
- Overload/ over temperature/ short circuit protection.
- Compatible with mains voltage or generator power.
- Built-in MPPT solar charge controller.
- Lithium battery activation function.
- Auto restart while AC is recovering.
- Inverter running without battery.
- Cold start function.

## System Diagram



## Specifications

Model	IVEM6048
<b>Line Mode Specifications</b>	
Rated Output Power(VA)	6000VA
Rated Output Power(W)	6000W
Nominal DC Input Voltage	48V
Nominal Input Voltage	230Vac
Max. AC Input Voltage	280Vac
Nominal Input Frequency	50Hz / 60Hz (Auto detection)
Efficiency(Line Mode)	>95% (Rated R Load, Battery Full Charged)
Pass Through Without Battery	Yes
<b>Utility Charge Mode Specifications</b>	
Input Voltage Range	90~280Vac
Max. Charge Current	100A
Over Charge Protection	Yes
<b>Solar Charging &amp; Grid Charging</b>	
Max.PV Open Circuit Voltage	500V
PV Voltage Working Range	90V-450V
Max. Input Power	7000W
Max. Solar Charging Current	120A
Max. Charging Current(PV+Grid)	120A
Max. Input Current	27A
Min. Startup Voltage	95V
<b>Inverter Mode Specifications</b>	
Output Voltage Waveform	Pure Sine Wave
Nominal Output Voltage	230Vac±5%
Nominal Output Frequency(Hz)	50±0.3Hz/60Hz±0.3Hz(Adjustable)
Parallel Capability	Yes, Up to 12 Units
Peak Efficiency	93%
Over-Load Protection(SMPS load)	5s@≥150% load; 10s @105%~150% load
Surge Rating	2* Rated Power for 5s
Capable of Starting Electric	Yes
Output Short Circuit Protection	Yes
<b>General Specifications</b>	
Operating Temperature	-10°C~50°C
Range Storage Temperature	-15°C~60°C
Net Weight(KG)	11.5KG
Product Dimension(MM)	420*335*142MM
Package Dimension(MM)	512*417*216MM
Certification	EN IEC 61000-6-2: 2019/EN IEC 61000-6-4: 2019/EN 61000-3-12: 2011/ EN IEC 61000-3-11: 2019/EN 62109-1: 2010/EN 62109-2: 2011

\*Refer to Felicitysolar's Warranty Policy for applicable conditions.

# Off-grid High-frequency Solar Inverter

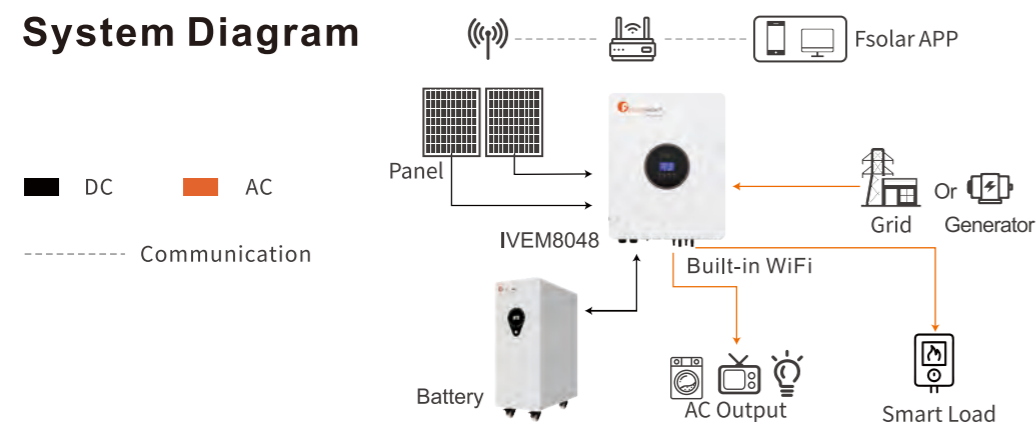
IVEM Series | IVEM8048



## Features

- Built-in WiFi for mobile monitoring (APP is required).
- Support parameters setting via LCD screen (input voltage/charging current/charge mode).
- Supports up to 6 units in parallel (Battery must be connected).
- Equipped with dual-output (Single machine mode).
- The second path of the AC output can set the output time.
- Overload/ over temperature/ short circuit protection.
- Compatible with mains voltage or generator power.
- Built-in MPPT solar charge controller with 2 strings of solar input.
- Lithium battery activation function.
- Inverter running without battery.
- Auto restart while AC is recovering.
- Cold start function.

## System Diagram



## Specifications

Model	IVEM8048
<b>Line Mode Specifications</b>	
Rated Output Power(VA)	8000VA
Rated Output Power(W)	8000W
Nominal DC Input Voltage	48V
Nominal Input Voltage	230Vac
Max. AC Input Voltage	280Vac
Nominal Input Frequency	50Hz / 60Hz (Auto Detection)
Efficiency(Line Mode)	>95% (Rated R Load, Battery Full Charged)
Pass Through Without Battery	Yes
<b>Utility Charge Mode Specifications</b>	
Nominal Input Voltage	230Vac
Input Voltage Range	90-280Vac
Max. Charge Current	150A
Over Charge Protection	Yes
<b>Solar Charging &amp; Grid Charging</b>	
Max.PV Open Circuit Voltage	500V
PV Voltage Working Range	90V-450V
Max. Input Power	10000W(5000W for single PV)
Max. Solar Charging Current	150A
Max. Charging Current(PV+Grid)	150A
Max. Input Current	20A X 2 (MAX 40A)
Min. Startup Voltage	100V
Number of MPP Trackers / Strings Per MPP Tracker	2/1
<b>Inverter Mode Specifications</b>	
Output Voltage Waveform	Pure sine wave
Nominal Output Voltage	230Vac+5%
Nominal Output Frequency(Hz)	50±0.3Hz/60Hz±0.3Hz(Adjustable)
Parallel Capability	Yes, up to 6 units
Peak Efficiency	94.5%
Over-Load Protection(SMPS load)	5s@≥150% load; 10s @105% ~150% load
Surge Rating	2* rated power for 5s
Capable of Starting Electric	Yes
Output Short Circuit Protection	Yes
<b>General Specifications</b>	
Operating Temperature	-10°C~50°C
Range Storage Temperature	-15°C~60°C
Net Weight(KG)	23.7KG
Gross Weight(KG)	27.4KG
Product Dimension(MM)	607*464*141MM
Package Dimension(MM)	712*582*259MM
Certification	EN IEC 61000-6-2: 2019/EN IEC 61000-6-4: 2019/EN 61000-3-12: 2011/ EN IEC 61000-3-11: 2019/EN 62109-1: 2010/EN 62109-2: 2011

\*Refer to Felicitysolar's Warranty Policy for applicable conditions.

# Off-grid High-frequency Solar Inverter

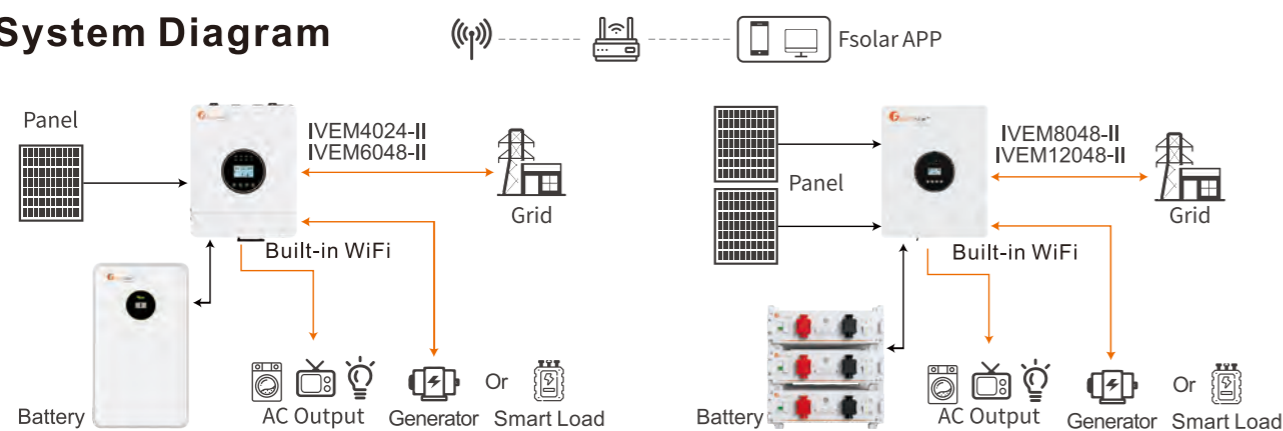
IVEM-II Series | IVEM4024/6048/8048/12048-II



## Features

- Built-in WiFi for mobile monitoring (APP is required).
- Support parameters setting via LCD screen (input voltage/charging current/charge mode).
- Supports up to 12 units in parallel (6K) / 6 units (8K & 12K) in parallel (Battery must be connected).
- Supports generator input port reconfiguration to smart output port with customizable duration.
- Compatible with mains voltage or generator power.
- Built-in MPPT solar charge controller.
- Lithium battery activation function.
- Inverter running without battery.
- Auto restart while AC is recovering.
- Cold start function.

## System Diagram



## Specifications

Model	IVEM4024-II	IVEM6048-II	IVEM8048-II	IVEM12048-II
<b>Line Mode Specifications</b>				
Rated Output Power(VA)	4000VA	6000VA	8000VA	12000VA
Rated Output Power(W)	4000W	6000W	8000W	12000W
Nominal DC Input Voltage	24V	48V	48V	48V
Nominal Input Voltage	230Vac			
Max. AC Input Voltage	280Vac			
Nominal Input Frequency	50Hz / 60Hz (Auto Detection)			
Pass Through Without Battery	Yes			
<b>Utility Charging Mode Specifications /Generator Charging Mode Specifications</b>				
Nominal Input Voltage	230Vac			
Input Voltage Range	90-280Vac			
Max. Charge Current	120A	120A	150A	240A
Charge Current Regulation	10-120A (Adjustable Unit is 1A)	10-120A (Adjustable Unit is 1A)	10-150A (Adjustable Unit is 1A)	10-240A (Adjustable Unit is 1A)
Over Charge Protection	Yes			
<b>Solar Charging &amp; Grid Charging or GEN Charging</b>				
Max.PV Open Circuit Voltage	500V			
PV Voltage Working Range	60V-500V	90V-450V	90V-450V	90V-450V
Max. Input Power	6000W	7500W	10000W(5000W for single PV)	15000W(7500W for Single PV)
Max. Solar Charging Current	120A	120A	150A	240A
Max. Charging Current(PV+Grid or GEN)	120A	120A	150A	240A
Max. Input Current	27A	27A	20A X 2(MAX 40A)	27A X 2(MAX 54A)
Min. Startup Voltage	60V	95V	100V	100V
<b>Inverter Mode Specifications</b>				
Output Voltage Waveform	Pure Sine Wave			
Nominal Output Voltage	230Vac+5%			
Nominal Output Frequency(Hz)	50±0.3Hz/60Hz±0.3Hz(Adjustable)			
Parallel Capability	No	Yes, Up to 12 Units	Yes, Up to 6 Units	
Capable of Starting Electric	Yes			
Output Short Circuit Protection	Yes			
<b>General Specifications</b>				
Operating Temperature	-10°C~50°C			
Range Storage Temperature	-15°C~60°C			
Net Weight(KG)	10.4KG	12.5KG	23.7KG	26.8KG
Product Dimension(MM)	430*310*120MM	420*335*142MM	607*464*141MM	634*476*141MM
Package Dimension(MM)	507*387*197MM	512*417*216MM	712*582*259MM	726*594*258MM
Certification	CE-EMC、IEC 62109-1/2	CE-EMC、IEC 62109-1/2	CE-EMC、IEC 62109-1/2	CE-EMC、IEC 62109-1/2

\*Refer to Felicitysolar's Warranty Policy for applicable conditions.

# Off-grid High-frequency Solar Inverter

IVEM-SAI Series | IVEM4024/6048-SAI

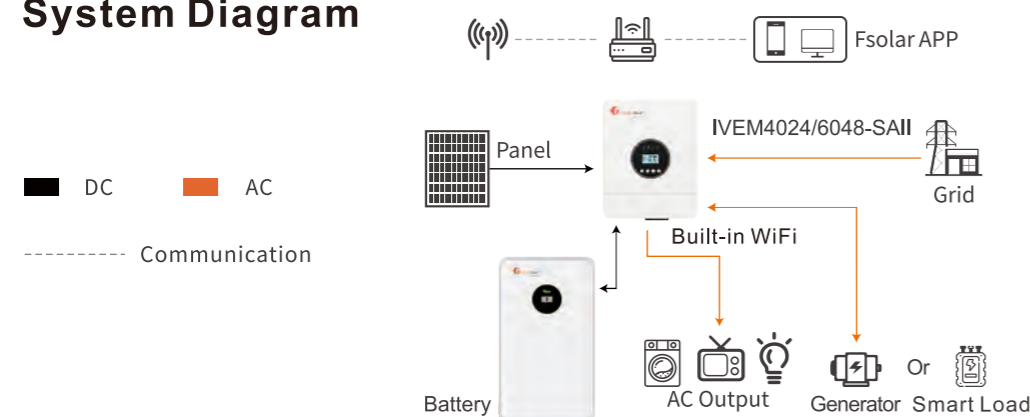


\* Spanish and portuguese versions available

## Features

- Built-in WiFi for mobile monitoring (APP is required).
- Support parameters setting via LCD screen (input voltage/charging current/charge mode).
- 6kW model supports up to 12 units in parallel (Battery must be connected).
- Supports generator input port reconfiguration to smart output port with customizable duration.
- Compatible with mains voltage or generator power.
- Built-in MPPT solar charge controller.
- Lithium battery activation function.
- Inverter running without battery.
- Auto restart while AC is recovering.
- Cold start function.

## System Diagram



## Specifications

Model	IVEM4024-SAI	IVEM6048-SAI
<b>Line Mode Specifications</b>		
Rated Output Power	4000VA / 4000W	6000VA / 6000W
Rated DC Input Voltage	24V	48V
Input Voltage Waveform	Pure sine wave (Utility grid or generator)	
Rated AC Input Voltage	220VAC	
Rated Input Frequency	50Hz	
Output Short-Circuit Protection	Line mode: Circuit breaker Battery mode: Electronic protection	
Efficiency (Line Mode)	>93% (Resistive load at nominal load, battery fully charged)	>95% (Resistive load at nominal load, battery fully charged)
Transfer Time (Single Unit)	10 ms typical (UPS mode) 20 ms typical (Appliance mode)	
Operation Without Battery	Yes	
Transfer Time (parallel)	/	50ms typical
Maximum Bypass Overload Current	30A	40A
Maximum Inverter/Charger Current	30A / 4000W	40A / 6000W
<b>Grid Charging Mode Specifications</b>		
Rated AC Input Voltage	220VAC	
AC Input Voltage Range	90-280Vac (Appliance mode) 180-280Vac (Computer mode)	90-280Vac
Rated Output Voltage	Depends on battery type	
Maximum Charging Current	120A	
Charging Current Regulation Range	10-120A (Adjustable in 1A increments)	
Overload Protection	Yes	
<b>Solar &amp; Utility Charging</b>		
Maximum PV Open-Circuit Voltage	500V	
PV Operating Voltage Range	60-500V	90-450V
Maximum PV Input Power	6000W	7500W
Maximum Solar Charging Current	120A	
Maximum Charging Current (PV + Utility)	120A	
Maximum Input Current	27A	
Minimum Start-up Voltage	60V	95V
<b>General Specifications</b>		
Operating Temperature	-10°C ~ 50°C	
Storage Temperature Range	-15°C ~ 60°C	
Net Weight	10.4KG	12.5KG
Product Dimensions (L × W × H)	430*310*120MM	420*330*142MM
Package Dimensions (L × W × H)	507*387*197MM	512*417*216MM

\*Refer to Felicitysolar's Warranty Policy for applicable conditions.

# Off-grid High-frequency Solar Inverter

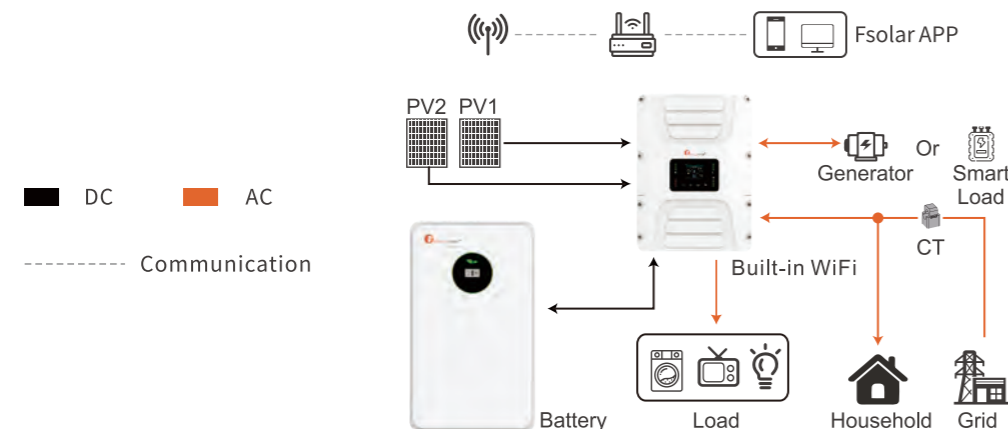
IVAM Series | IVAM6048P1G1



## Features

- Build-in WiFi for real-time monitoring.
- Build-in 2 strings of MPPT trackers.
- Programmable multiple operation modes: on grid, off grid and UPS.
- Compatible with utility power or generator power.
- IP65 protection level.
- Max. 12 units in parallel (6kW-72kW)
- LCD touchscreen for easy parameter and working mode settings.
- Guaranteed safety with multiple protections.
- Equipped with a power-limiting function to avoid grid overflow.
- Auto restart while AC is recovering.

## System Diagram



## Specifications

Model	IVAM6048P1G1
<b>Battery Input Data</b>	
Battery Type	Lead-acid or Lithium-ion
Battery Voltage Range(V)	40~60
Max. Charging Current/Max. Discharging Current(A)	135
Charging Strategy for Li-Ion Battery	Self-adaption to BMS
Number of Battery Input	1
<b>PV String Input Data</b>	
Max. PV Access Power(W)	12000W (6000W for per PV)
Max. PV Input Power(W)	9600
Max. PV Input Voltage(V)	500
Start-up Voltage(V)	120
PV Input Voltage Range(V)	90~500
MPPT Voltage Range(V)	90~425
Full Load MPPT Voltage Range(V)	300~425
Rated PV Input Voltage(V)	370
Max. Operating PV Input Current(A)	20+20
Max. Input Short-Circuit Current(A)	27+27
No. of MPP Trackers/No. of Strings MPP Tracker	2/1+1
<b>AC Output Data</b>	
Rated AC Output Power(VA/W)	6000
Max. AC Output Power(VA/W)	6000
Max. AC Output Current(A)	26.1
Peak Power(W)	2 Times of Rated power, 10s
Rated Output Voltage(V)	230
Output Type	L+N+PE
Rated Output Frequency	50Hz/60Hz
Output Voltage Waveform	Pure Sine Wave
<b>AC Input Data(Grid and Generator)</b>	
Max. Input Power to Battery(W)	6000
Rated Input Voltage(V)	230
Rated Input Frequency	50Hz/60Hz
Grid Input Current(A)	35
Generator Input Current(A)	35
<b>Equipment Protection</b>	
AC Output Overvoltage Protection	Yes
AC Output Short Circuit Protection	Yes
AC Output Overcurrent Protection	Yes
DC Polarity Reverse Connection Protection	Yes
Thermal Protection	Yes
DC Terminal Insulation Impedance Monitoring	Yes
DC Component Monitoring	Yes
Ground Fault Current Monitoring	Yes
Arc fault circuit interrupter (AFCI)	Optional
Power Network Monitoring	Yes
Earth Fault Detection	Yes
DC Input Switch	Yes
Overvoltage Load Drop Protection	Yes
Surge Protection Level	TYPE II(DC), TYPE II(AC)
<b>General Data</b>	
Display	LCD+LED
Communication Interface	RS485, CAN
Monitor Mode	WiFi/LAN (Optional)
<b>General Data</b>	
Operating Temperature Range	-40 to +60°C, >45°C Derating
Ingress Protection (IP) Rating	IP65
Over Voltage Category	OVC II(DC), OVC III(AC)
Warranty	5 Years
Type of Cooling	Intelligent Air Cooling
Net Weight	13.5kg
Product Dimension	320x432x183mm
Package Dimension	412x532x270mm
Safety EMC/Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2

\*Disclaimer: This product is currently in pilot production. Final specifications, design, and features may differ from those presented here.  
\*Refer to Felicitysolar's Warranty Policy for applicable conditions.

# Low-voltage Hybrid Solar Inverter

T-REX Series | T-REX-5/6KLP1G01

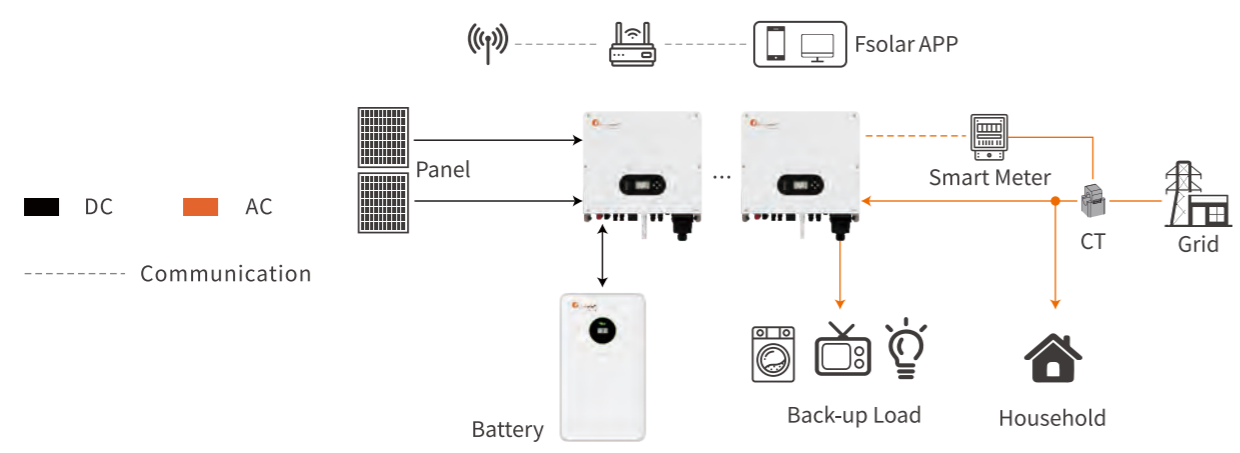
Single Phase



## Features

- Enables real-time monitoring via WiFi.
- 48V low voltage battery, transformer isolation topology.
- AI-powered forecasting, smart planning & personalized energy optimization.
- AC couple to retrofit existing solar system.
- Support storing energy from diesel generator.
- Seamless power supply switching within 20ms.
- Scalable expansion up to 6 pcs in parallel.
- Customizable battery charge / discharge scheduling.

## System Diagram



## Specifications

Model	T-REX-5KLP1G01	T-REX-6KLP1G01
<b>Battery Input Data</b>		
Battery Voltage Range	40V~60V	
Max. charging and discharging current	100A/100A	120A/120A
Max. charging and discharging power	5000W	6000W
Battery type	Li-Ion / Lead-acid	
<b>DC Input Data(PV side)</b>		
Max. Recommended PV Power	6500W (3500W for Single PV)	7800W (3900W for Single PV)
Max. PV Voltage	550V	
Start Voltage	130V	
PV Voltage Range	90V-550V	
MPPT Voltage Range	100V-500V	
MPPT Voltage Range for Full Load	220V-500V	260V-500V
Nominal Voltage	360V	
Max. Input Current	15A/15A	
Max. Shorted Current	18A/18A	
Number of MPP Trackers / Strings Per MPP Tracker	2/1	
<b>Grid Data</b>		
Nominal Input Voltage	230Vac	
Nominal Grid Frequency	50/60Hz	
Max. Input Current	40A	
Max. Charge Current	100A	120A
Max. AC Output Power	5000W	6000W
AC Output Rated Current	21.7A	26A
Max. Output Current	25A	30A
Max. Continuous AC Passthrough	40A	
Power Factor	>0.99	
Displacement Power Factor	0.8(Leading) to 0.8(Lagging)	
THDI	<3%	
<b>AC Output Data(Back Up)</b>		
Rated Output Power	5000VA/5000W	6000VA/6000W
Max. Output Current	30A	
Rated AC Output Voltage	230Vac	
Rated AC Output Frequency	50/60Hz	
<b>Protection</b>		
Output Over Current Protection	Integrated	
Output Over Power Protection	Integrated	
Output Short-Circuit Protection	Integrated	
Anti-islanding Protection	Integrated	
GFCI Protection	Integrated	
Insulation Resistor Detection	Integrated	
<b>General Data</b>		
Operating Temperature Range	-25°C~60°C, >45°C Derating	
Protection Degree	IP65	Intelligent Air Cooling
Cooling Concept	Nature	
Communication	RS232/RS485	
BMS Communication	CAN/RS485	
Monitor Module	WiFi/GPRS	
Display	LCD+LED	
Installation Style	Wall-mounted	
Warranty	10 Years	
Grid Regulation	CEI0-21、G99、VDE 4105、EN 50549-1、NRS 097-2-1、C10/11、NTS & UNE217001 & UNE217002、PORTARIA N° 140 & 515	
Safety Regulation	IEC 62109-1/-2	
EMC	IEC/EN 61000-6-1/2/3/4、EN/IEC 61000-3-11/12	
Net Weight(KG)	32.4KG	
Gross Weight(KG)	39.1KG	
Product Dimension(MM)	530*493*228MM	
Package Dimension(MM)	632*570*315MM	

\*Refer to Felicitysolar's Warranty Policy for applicable conditions.

# Low-voltage Hybrid Solar Inverter

IVGM Series | IVGM5~8KLP1G1

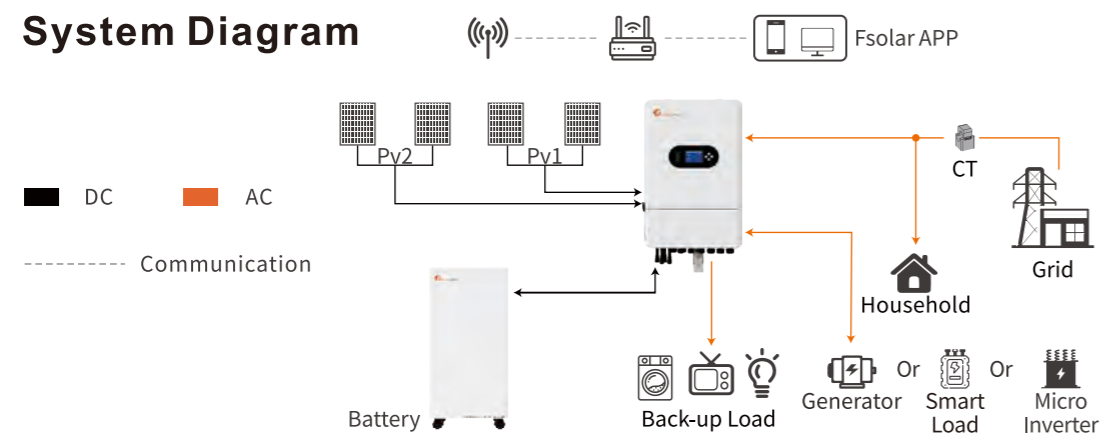
Single Phase



## Features

- Configurable parameters and working mode by LCD touch screen.
- Supporting WiFi monitoring and Fsolar smart cloud monitoring system.
- Battery charge and discharge current up to 120A~190A.
- Prevent grid overload with built-in limit function while seamlessly switching between battery and grid supply within 10ms for uninterrupted power.
- IP65 protection level.
- Customizable battery charge / discharge scheduling.
- Optimize energy use with Time-of-Use, Sell-First, and Zero Export options to maximize savings and efficiency.
- Built-in dual MPPT solar charge controllers, 1.5 times over configuration capacity.
- Programmable generator port, support smart load and micro inverter access.
- Support parallel operation with single-phase, and three-phase.
- Max. 6 units in parallel.

## System Diagram



## Specifications

Model	IVGM5KLP1G1	IVGM6KLP1G1	IVGM7K6LP1G1	IVGM8KLP1G1
<b>Battery Input Data</b>				
Battery Voltage Range	40V~60V			
Max. Charging and Discharging Current	120A/120A	135A/135A	190A/190A	190A/190A
Max. Charging and Discharging Power	5000W	6000W	7600W	8000W
Battery Type	Li-Ion /Lead-acid			
<b>DC Input Data(PV side)</b>				
Max. Recommended PV Power	7500W	9000W	11400W	12000W
Max. PV Voltage	500V			
Start Voltage	100V			
PV Voltage Range	90V-500V			
MPPT Voltage Range	120V-425V			
MPPT Voltage Range for Full Load	290V-425V	230V-425V	230V-425V	230V-425V
Nominal Voltage	380V			
Pv Input Current	13A+13A	26A+13A	26A+26A	26A+26A
Max. Shorted Current	17A+17A	44A+17A	44A+44A	44A+44A
Number of MPP Trackers / Strings Per MPP Tracker	2/1+1	2/2+1	2/2	2/2
<b>Grid Data</b>				
Nominal Input Voltage	220/230Va.c (Single Phase)			
Nominal Grid Frequency	50/60Hz			
Max. AC Output Power	5500W	6600W	8360W	8800W
AC Output/Input Rated Current	21.7A	26.1A	33A	34.8A
Max. Output Current	23.9A	28.7A	36A	38.3A
Max. Continuous AC Passthrough	40A	40A	50A	50A
<b>AC Output Data(Back Up)</b>				
Rated Output Power	5000W	6000W	7600W	8000W
Max. Output Current	40A	40A	40A	40A
Rated AC Output Voltage	220/230Vac (Single Phase)			
Rated AC Output Frequency	50/60Hz			
<b>Protection</b>				
Output Over Current Protection	Integrated			
Output Over Power Protection	Integrated			
Output Short-Circuit Protection	Integrated			
Anti-islanding Protection	Integrated			
GFCI Protection	Integrated			
Arc Fault Circuit Interrupter(AFCI)	Integrated			
Insulation Resistor Detection	Integrated			
<b>General Data</b>				
Operating Temperature Range	-25°C~60°C, >45°C Derating			
Protection Degree	IP65			
Cooling Concept	Smart Cooling			
Communication	RS232 / RS485			
BMS Communication	CAN / RS485			
Monitor Module	WiFi / GPRS			
Display	LCD+LED			
Installation Style	Wall-mounted			
Warranty	10 Years			
Grid Regulation(In progress)	VDE 4105、CEI 0-21、G99、NRS 097-2-1、EN 50549-1、EN 50549-10、NC RFG(Poland)、EN 50549-1/-10+Netherlands、PPDS、NTS & UNE217001 & UNE217002、UL1741			
Safety Regulation	IEC 62109-1/-2			
EMC	IEC/EN 61000-6-1/2/3/4、EN/IEC 61000-3-11/12			
Net Weight(KG)	33.5KG			
Gross Weight(KG)	40.5KG			
Product Dimension(MM)	430*654*243MM			
Package Dimension(MM)	787*547*358MM			

\* Refer to Felicitysolar's Warranty Policy for applicable conditions.

# Low-voltage Hybrid Solar Inverter

IVGM Series | IVGM5~8KLP2G1

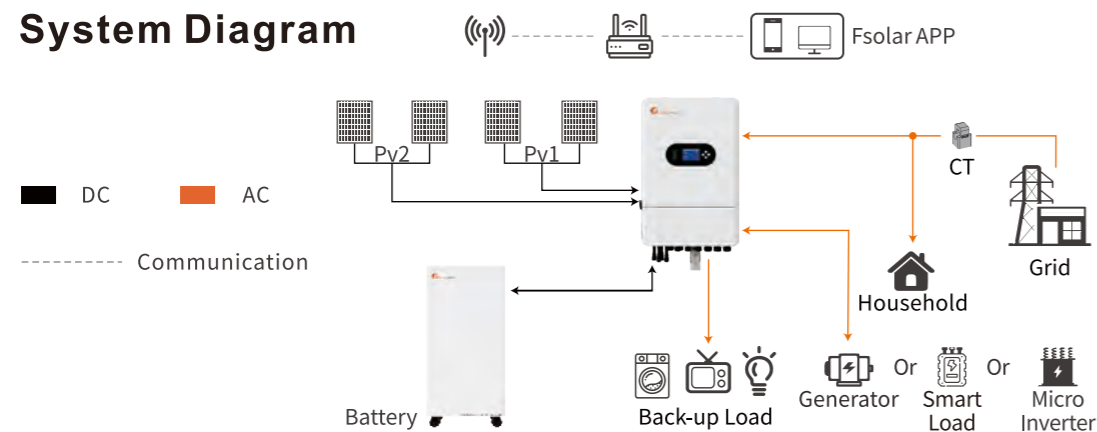
Split Phase



## Features

- Configurable parameters and working mode by LCD touch screen.
- Supporting WiFi monitoring and Fsolar smart cloud monitoring system.
- Battery charge and discharge current up to 120A~190A.
- Prevent grid overload with built-in limit function while seamlessly switching between battery and grid supply within 10ms for uninterrupted power.
- IP65 protection level.
- Customizable battery charge / discharge scheduling.
- Optimize energy use with Time-of-Use, Sell-First, and Zero Export options to maximize savings and efficiency.
- Built-in dual MPPT solar charge controllers, 1.5 times over configuration capacity.
- Programmable generator port, support smart load and micro inverter access.
- Support parallel operation with single-phase, split phase and three-phase.
- Max. 6 units in parallel.

## System Diagram



## Specifications

Model	IVGM5KLP2G1	IVGM6KLP2G1	IVGM7K6LP2G1	IVGM8KLP2G1
<b>Battery Input Data</b>				
Battery Voltage Range	40V~60V			
Max. Charging and Discharging Current	120A/120A	135A/135A	190A/190A	190A/190A
Max. Charging and Discharging Power	5000W	6000W	7600W	8000W
Battery Type	Li-Ion /Lead-acid			
<b>DC Input Data(PV side)</b>				
Max. Recommended PV Power	7500W	9000W	11400W	12000W
Max. PV Voltage	500V			
Start Voltage	100V			
PV Voltage Range	90V-500V			
MPPT Voltage Range	120V-425V			
MPPT Voltage Range for Full Load	290V-425V	230V-425V	230V-425V	230V-425V
Nominal Voltage	380V			
Pv Input Current	13A+13A	26A+13A	26A+26A	26A+26A
Max. Shorted Current	17A+17A	44A+17A	44A+44A	44A+44A
Number of MPP Trackers / Strings Per MPP Tracker	2/1+1	2/2+1	2/2	2/2
<b>Grid Data</b>				
Nominal Input Voltage	120/240Va.c (Split Phase), 208Va.c (2/3 Phase)			
Nominal Grid Frequency	50/60Hz			
Max. AC Output Power	5500W	6600W	8360W	8800W
AC Output/Input Rated Current	20.8A	25A	31.7A	33.3A
Max. Output Current	22.9A	27.5A	34.8A	36.7A
Max. Continuous AC Passthrough	40A	40A	50A	50A
<b>AC Output Data(Back Up)</b>				
Rated Output Power	5000W	6000W	7600W	8000W
Max. Output Current	40A	40A	40A	40A
Rated AC Output Voltage	120/240Va.c (Split Phase), 208Va.c (2/3 Phase)			
Rated AC Output Frequency	50/60Hz			
<b>Protection</b>				
Output Over Current Protection	Integrated			
Output Over Power Protection	Integrated			
Output Short-Circuit Protection	Integrated			
Anti-islanding Protection	Integrated			
GFCI Protection	Integrated			
Arc Fault Circuit Interrupter(AFCI)	Integrated			
Insulation Resistor Detection	Integrated			
<b>General Data</b>				
Operating Temperature Range	-25°C~60°C, >45°C Derating			
Protection Degree	IP65			
Cooling Concept	Smart Cooling			
Communication	RS232 / RS485			
BMS Communication	CAN / RS485			
Monitor Module	WiFi / GPRS			
Display	LCD+LED			
Installation Style	Wall-mounted			
Warranty	10 Years			
Grid Regulation(In progress)	VDE 4105, CEI 0-21, G99, NRS 097-2-1, EN 50549-1, EN 50549-10, NC RFG(Poland), EN 50549-1/-10+Netherlands, PPDS, NTS & UNE217001 & UNE217002, UL1741			
Safety Regulation	IEC 62109-1/-2			
EMC	IEC/EN 61000-6-1/2/3/4, EN/IEC 61000-3-11/12			
Net Weight(KG)	33.5KG			
Gross Weight(KG)	40.5KG			
Product Dimension(MM)	430*654*243MM			
Package Dimension(MM)	787*547*358MM			

\* Refer to Felicitysolar's Warranty Policy for applicable conditions.

# Low-voltage Hybrid Solar Inverter

IVGM Series | IVGM5~8KLP2G1-US

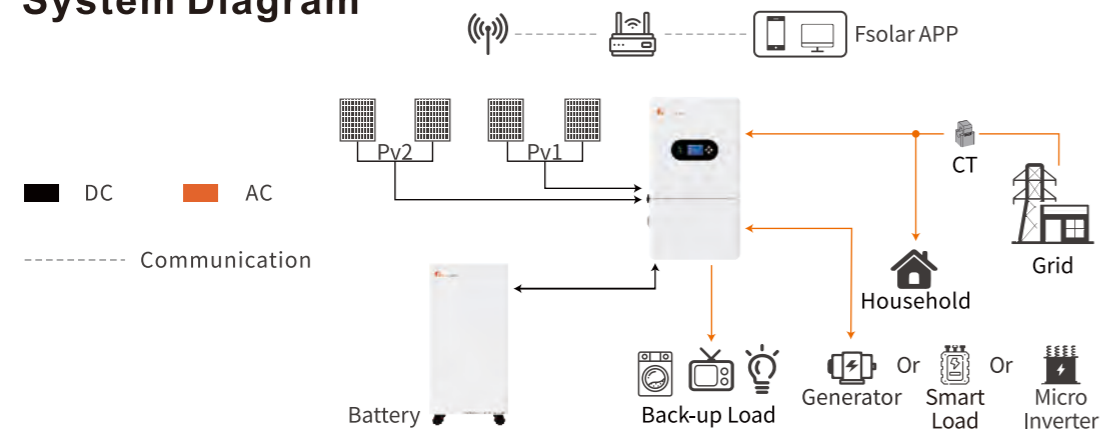
Split Phase



## Features

- Configurable parameters and working mode by LCD touch screen.
- Customizable battery charge / discharge scheduling.
- Supporting WiFi monitoring and F solar smart cloud monitoring system.
- Battery charge and discharge current up to 190A.
- Optimize energy use with Time-of-Use, Sell-First, and zero export options to maximize savings and efficiency.
- IP65 protection level.
- Prevent grid overload with built-in limit function while seamlessly switching between battery and grid supply within 10ms for uninterrupted power.
- Built-in dual MPPT solar charge controllers, 1.5 times over configuration capacity.
- Programmable generator port, support smart load and micro inverter access.
- Support parallel operation with single-phase, split phase and three-phase.

## System Diagram



## Specifications

Model	IVGM8KLP2G1-US	IVGM7K6LP2G1-US	IVGM6KLP2G1-US	IVGM5KLP2G1-US
Overvoltage-category	DC II; AC III			
Ambient Temperature	- 25°C~60°C,>45°C Derating			
<b>Battery Input</b>				
Battery Type	Lithium-ion/Lead-acid			
Battery Voltage Range	40Vd.c.~60Vd.c.			
Max. Charging and Discharging Current	190Ad.c.	190Ad.c./190Ad.c.	135Ad.c./135Ad.c.	120Ad.c./120Ad.c.
Max. Charging and Discharging Power	8000W	7600W	6000W	5000W
<b>PV Input</b>				
Max. Input Voltage	500Vd.c.			
MPPT Input Range	120Vd.c.~425Vd.c.			
Max.Input Current	26Ad.c./26Ad.c.	26Ad.c./26Ad.c.	26Ad.c./13Ad.c.	13Ad.c./13Ad.c.
Max.Short Current	44Ad.c./44Ad.c.	44Ad.c./44Ad.c.	44Ad.c./17Ad.c.	17Ad.c./17Ad.c.
Max.PV Input Power	12000W	11400W	9000W	7500W
Max. Backfeed Current	0A	/	/	/
<b>AC Input(Grid side and Gen side)</b>				
Rated Voltage	120/240Va.c., 120/208Va.c.			
Rated Frequency	50/60Hz			
Max.Input Current	36.7A@240V, 42.3A@208V	34.8A@240V, 40.2A@208V	27.5A@240V, 31.7A@208V	23A@240V, 26.4A@208V
AC Rated Active Power	8000W	7600W	6000W	5000W
Max. Apparent Power	8800VA	8360VA	6600VA	5500VA
<b>AC Output(Grid side and Load side)</b>				
Rated Voltage	120/240Va.c., 120/208Va.c.			
Rated Frequency	50/60HZ			
Max. Output Current	36.7A@240V, 42.3A@208V	34.8A@240V, 40.2A@208V	27.5A@240V, 31.7A@208V	23A@240V, 26.4A@208V
Max. Continuous Grid Passthrough	50Aa.c.	50Aa.c.	40Aa.c.	40Aa.c.
AC Output Rated Active Power	8000W	7600W	6000W	5000W
Max. Apparent Power	8800VA	8360VA	6600VA	5500VA
AC Power Factor	0.8 Leading To 0.8 Lagging			

Non-isolated topology, IP65, Class I protective class

\*Refer to Felicitysolar's Warranty Policy for applicable conditions.

# Low-voltage Hybrid Solar Inverter

T-REX Series | T-REX-10KLP3G01

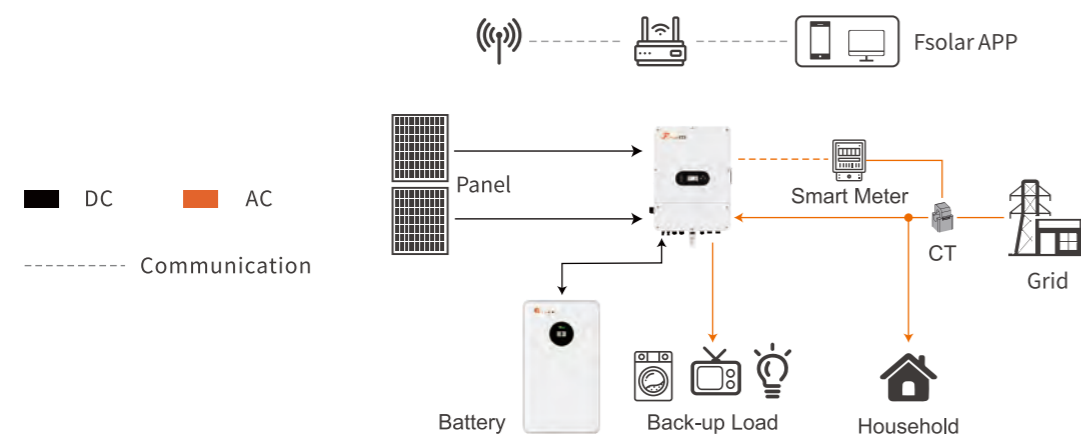
Three Phase



## Features

- AI-powered forecasting, smart planning & personalized energy optimization.
- AC couple to retrofit existing solar system.
- Support WiFi for mobile monitoring.
- Customizable battery charge / discharge scheduling.
- Max. charging / discharging current of 200A.
- Switch power supply within 20ms.
- IP65 protection level.

## System Diagram



## Specifications

Model	T-REX-10KLP3G01
<b>Battery Input Data</b>	
Battery Voltage Range	40V~60V
Max. Charging and Discharging Current	200A/200A
Max. Charging and Discharging Power	10000W
Battery Type	Li-Ion / Lead-acid
<b>DC Input Data(PV side)</b>	
Max. Recommended PV Power	13000W (6500W for Single PV)
Max. PV Voltage	900V
Start Voltage	180V
PV Voltage Range	160V-900V
MPPT Voltage Range	200V-850V
MPPT Voltage Range for Full Load	450V-850V
Nominal Voltage	720V
Max. Input Current	15A/15A
Max. Shorted Current	18A/18A
Number of MPP Trackers / Strings Per MPP Tracker	2/1
<b>Grid Data</b>	
Nominal Input Voltage	L1/L2/L3/N/PE, 230/400Vac
Nominal Grid Frequency	50/60Hz
Max. Input Current	30A
Max. Charge Current	200A
Max. AC Output Power	10000W
AC Output Rated Current	14.5A
Max. Output Current	18A
Max. Continuous AC Passthrough	30A
Power Factor	>0.99
Displacement Power Factor	0.8(Leading) to 0.8(Lagging)
THDI	<3%
<b>AC Output Data(Back Up)</b>	
Rated Output Power	10000VA/10000W
Max. Output Current	30A
Rated AC Output Voltage	L1/L2/L3/N/PE, 230/400Vac
Rated AC Output Frequency	50/60Hz
<b>Protection</b>	
Output Over Current Protection	Integrated
Output Over Power Protection	Integrated
Output Short-Circuit Protection	Integrated
Anti-islanding Protection	Integrated
GFCI Protection	Integrated
Insulation Resistor Detection	Integrated
<b>General Data</b>	
Operating Temperature Range	-25°C~60°C,>45°C Derating
Protection Degree	IP65
Cooling Concept	Smart cooling
Communication	RS232/RS485
BMS Communication	CAN/RS485
Monitor Module	WiFi/GPRS
Display	LCD+LED
Installation Style	Wall-mounted
Warranty	10 Years
Grid Regulation	VDE-AR-N 4105
Safety Regulation	IEC 62109-1/-2
Net Weight(KG)	38.9KG
Gross Weight(KG)	47.1KG
Product Dimension(MM)	655*475*266MM
Package Dimension(MM)	792*597*351MM

\*Refer to Felicitysolar's Warranty Policy for applicable conditions.

# Low-voltage Hybrid Solar Inverter

IVGM Series | IVGM10~20KLP3G1

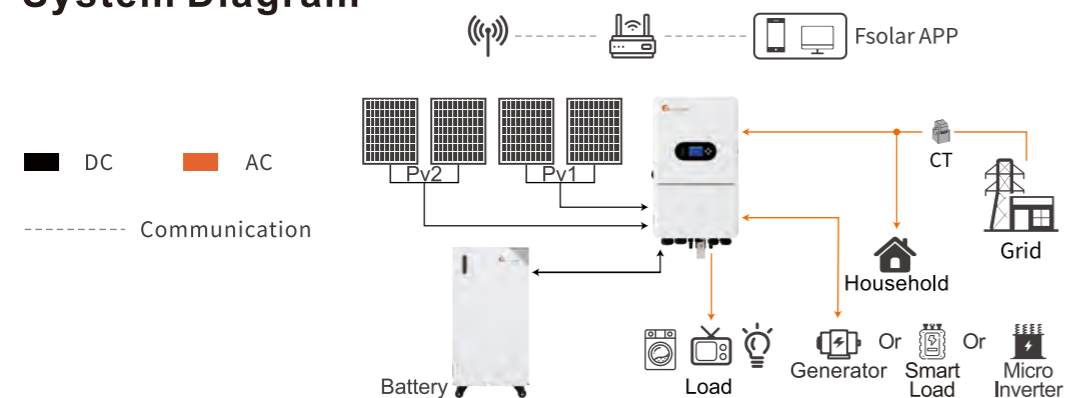
Three Phase



## Features

- Supports WiFi monitoring and F solar smart cloud monitoring system.
- Supports 100% unbalanced three-phase output for flexible load connection.
- LCD touch screen for easy parameter and mode settings.
- Fit for outdoor installation with IP65 protection level.
- Uninterrupted power with EPS function.
- Customizable battery charge / discharge scheduling.
- Compatible with generator, microgrid, and smart load port.
- Time of Use function to save on electricity cost.
- Battery charge and discharge current up to 350A.
- 4-channel PV, 2-channel MPPT, 1.6 times overconfiguration capacity.
- Max. 10 units in parallel.
- Auto restart while AC is recovering.

## System Diagram



## Specifications

Model	IVGM20KLP3G1	IVGM18KLP3G1	IVGM16KLP3G1	IVGM15KLP3G1	IVGM14KLP3G1	IVGM12KLP3G1	IVGM10KLP3G1
<b>Battery Input Data</b>							
Battery Type	Li-Ion / Lead-acid						
Battery Voltage Range	40V~60V						
Max. Charging/Discharging Current	350A	330A	300A	280A	260A	240A	210A
<b>PV String Input Data</b>							
Max. PV Input Power	32kW	28.8kW	25.6kW	24kW	22.4kW	18kW	15kW
Max. PV Input Voltage	800V						
Start-up Voltage	160V						
MPPT Voltage Rang	160V-650V						
Rated DC Input Voltage	550V						
Full Load DC Voltage Range	550V-800V	500V-800V	445V-800V	416V-800V	389V-800V	347V-800V	289V-800V
Max. Operating PV Input Current	36+36(A)					26+26(A)	
Max. Input Short-Circuit Current	54+54(A)					39+39(A)	
No. of MPP Trackers /No. of Strings MPP Tracker	2/2+2						
<b>AC Input/Output Data</b>							
Rated AC Input/Output Active Power	20kW	18kW	16kW	15kW	14kW	12kW	10kW
Max. AC Input/Output Apparent Power	22kVA	19.8kVA	17.6kVA	16.5kVA	15.4kVA	13.2kVA	11kVA
Peak Power (Off-grid)	2 Times of Rated Power, 10s						
Rated AC Input/Output Current	28.9A	26.1A	23.2A	21.8A	20.3A	17.4A	14.5A
Max. AC Input/Output Current	31.9A	28.7A	25.5A	23.9A	22.3A	19.2A	16A
Max. Continuous AC Passthrough (Grid to Load)	70A					45A	
Max. Output Overcurrent Protection	92A					65A	
Rated Input/Output Voltage/Range	220/380,230/400Vac(-20%~+15%)						
AC Wiring Mode	3L+N+PE						
Rated Input/Output Grid Frequency/Range	50/60 Hz(45~55Hz/55~65Hz)						
<b>Equipment Protection</b>							
DC Polarity Reverse Connection Protection	Yes						
AC Output Overcurrent Protection	Yes						
AC Output Overvoltage Protection	Yes						
AC Output Short Circuit Protection	Yes						
Thermal Protection	Yes						
DC Terminal Insulation Impedance Monitoring	Yes						
DC Component Monitoring	Yes						
Ground Fault Current Monitoring	Yes						
Arc Fault Circuit Interrupter (AFCI)	Yes						
Power Network Monitoring	Yes						
Island Protection Monitoring	Yes						
Earth Fault Detection	Yes						
DC Input Switch	Yes						
Overvoltage Load Drop Protection	Yes						
Residual Current (RCD) Detection	Yes						
Surge Protection Level	TYPE II(DC), TYPE II(AC)						
<b>Certification and Standards</b>							
Grid Regulation	NRS 097-2-1, VDE4105, EN50549-1, AS 4777.2, GB / T 34120, GB / T 34133, GB / T 34129						
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2						
<b>General Data</b>							
Net Weight(KG)	48.7KG						
Gross Weight(KG)	60.2KG						
Product Dimension(MM)	750x450x268MM						
Package Dimension(MM)	889x566x397MM						
Protection Degree	IP65						
Communication with BMS	RS485/CAN						
Monitor Module	WiFi/4G						
Warranty	5 Years/10 Years The Warranty Period Donende tho Final Tnetallation Sito of Inverter More Info Please Refer to Warranty Policy						

\*Refer to Felicitysolar's Warranty Policy for applicable conditions.

# High-voltage Hybrid Solar Inverter

T-REX Series | T-REX-10KHP3G01

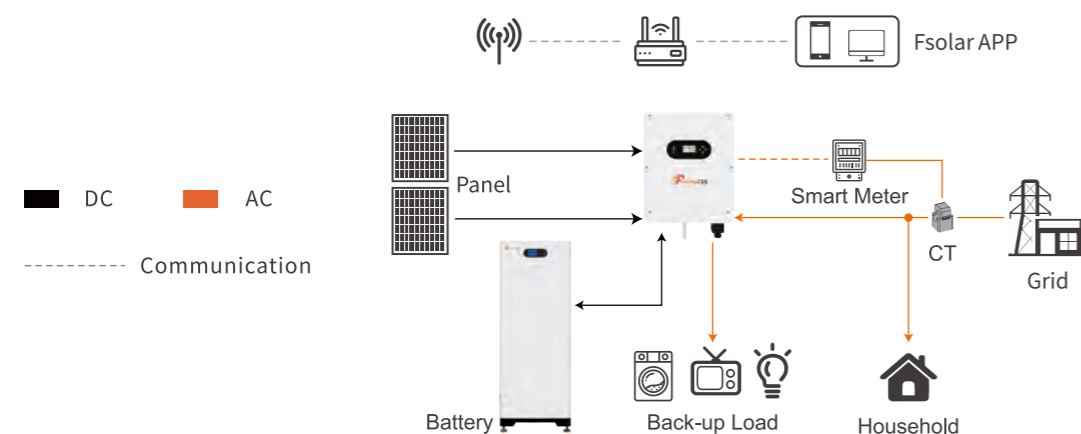
Three Phase



## Features

- Support WiFi for mobile monitoring.
- Max. charging / discharging current of 25A.
- AC couple to retrofit existing solar system.
- Customizable battery charge / discharge scheduling.
- Support storing energy from diesel generator.
- Switch power supply within 20ms.
- IP65 protection level.

## System Diagram



## Specifications

Model	T-REX-10KHP3G01
<b>Battery Input Data</b>	
Battery Voltage Range	180V~580V
Max. charging and discharging current	25A
Max. charging and discharging power	10000W
Battery type	Li-Ion / Lead-acid
<b>DC Input Data(PV side)</b>	
Max. Recommended PV Power	13000W (6500W for Single PV)
Max. PV Voltage	900V
Start Voltage	160V
PV Voltage Range	160V-900V
MPPT Voltage Range	200V-850V
MPPT Voltage Range for Full Load	450V-850V
Nominal Voltage	720V
Max. Input Current	15A/15A
Max. Shorted Current	18A/18A
Number of MPP Trackers / Strings Per MPP Tracker	2/1
<b>Grid Data</b>	
Nominal Input Voltage	L1/L2/L3/N/PE, 230/400Vac
Nominal Grid Frequency	50/60Hz
Max. Input Current	30A
Max. Charge Current	25A
Max. AC Output Power	10000W
AC Output Rated Current	14.5A
Max. Output Current	18A
Max. Continuous AC Passthrough	30A
Power Factor	>0.99
Displacement Power Factor	0.8(Leading) to 0.8(Lagging)
THDI	<3%
<b>AC Output Data(Back Up)</b>	
Rated Output Power	10000VA/10000W
Max. Output Current	30A
Rated AC Output Voltage	L1/L2/L3/N/PE, 230/400Vac
Rated AC Output Frequency	50/60Hz
<b>Protection</b>	
Output Over Current Protection	Integrated
Output Over Power Protection	Integrated
Output Short-Circuit Protection	Integrated
Anti-islanding Protection	Integrated
GFCI Protection	Integrated
Insulation Resistor Detection	Integrated
<b>General Data</b>	
Operating Temperature Range	-25°C~60°C,>45°C Derating
Protection Degree	IP65
Cooling Concept	Nature
Communication	RS232/RS485
BMS Communication	CAN/RS485
Monitor Module	WiFi/GPRS
Display	LCD+LED
Installation Style	Wall-mounted
Warranty	10 Years
Grid Regulation	VDE-AR-N 4105 EN50549-1
Safety Regulation	IEC 62109-1/-2
EMC	SZNTC2206135EV00 / EN IEC 61000-6-2: 2019 / EN IEC 61000-6-4: 2019 / EN IEC 61000-3-11: 2019 / EN 61000-3-12: 2011
Net Weight(KG)	35.3KG
Gross Weight(KG)	39.7KG
Product Dimension(MM)	533*431*213MM
Package Dimension(MM)	635*533*315MM

\*Refer to Felicitysolar's Warranty Policy for applicable conditions.

# High-voltage Hybrid Solar Inverter

IVGM Series | IVGM25~50KHP3G2

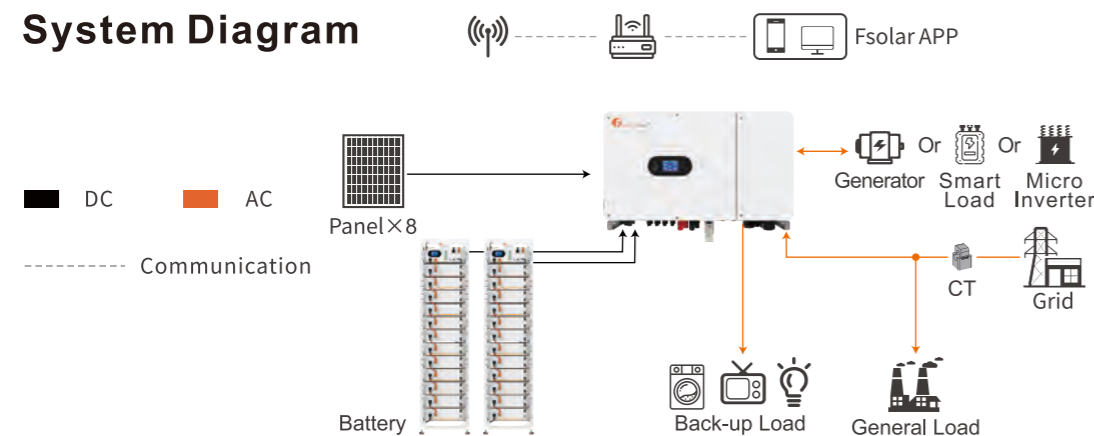
Three Phase



## Features

- AI-powered forecasting, smart planning & personalized energy optimization.
- Supports WiFi monitoring and Fsoler smart cloud monitoring system.
- Customizable battery charge / discharge scheduling.
- Seamless power supply switching within 10ms.
- Configurable parameters and working mode via LCD touch screen.
- Programmable multiple operation modes: On grid, off grid and UPS.
- Programmable supply priority for battery or grid.
- 2 independent battery inputs, effectively reducing inter-cluster circulation.
- Multi-string PV input, 2 times over configuration capacity.
- Programmable generator port, support smart load and micro inverter access.
- IP65 protection level.
- 12 pcs in parallel maximum.
- Auto restart while AC is recovering.

## System Diagram



## Specifications

Model	IVGM50KHP3G2	IVGM40KHP3G2	IVGM30KHP3G2	IVGM29K9HP3G2	IVGM25KHP3G2
<b>Battery Input Data</b>					
Battery Type	LFP (LiFePO4)				
Battery Voltage Range	160~800Vdc				
Max. Charging Current	50+50(A)				
Max. Discharging Current	50+50(A)				
Number of Battery Input	2				
<b>PV String Input Data</b>					
Max. DC Access Power	100kW	80kW	60kW	59.8kW	50kW
Max. DC Input Power	80kW	64kW	48kW	47.84kW	40kW
Max. DC Input Voltage	1000Vdc				
Min. DC Input Voltage	150Vdc				
Start-up Voltage	180Vdc				
Rated DC Input Voltage	600Vdc				
MPPT Range	150~850Vdc				
Full Load DC Voltage Range	550~850Vdc	444~850Vdc	444~850Vdc	443~850Vdc	555~850Vdc
PV Input Current	36+36+36+36(A)		36+36+36(A)		36+36(A)
Max. PV Isc	55+55+55+55(A)		55+55+55(A)		55+55(A)
No. of MPP Trackers	4		3		2
No. of Strings Per MPP Tracker	2		2		2
<b>AC Output Data</b>					
Rated AC Output Power	50kW	40kW	30kW	29.9kW	25kW
Max. AC Output Power	55kW	44kW	33kW	29.9kW	27.5kW
AC Output Rated Current	72.5A	58A	43.5A	43.4A	36.3A
Max. AC Current	79.7A	63.8A	47.9A	43.4A	39.9A
Max. Output Overcurrent Protection (A)	192 (A)		144(A)		
Rated AC Voltage	220/380,230/400 Vac(-20%~+15%)				
AC Wiring Mode	3L+N+PE				
Rated AC Frequency	50 /60 Hz (45~55Hz/55~65Hz)				
THDI	<3% (At Rated Power)				
Power Factor	0.8( Leading) to 0.8( Lagging)				
<b>Safety and Standards</b>					
Surge Protection Level	TYPE II(DC), TYPE II(AC)				
Over Voltage Category	OVCI (DC), OVC III (AC)				
Grid Regulation	NRS 097-2-1, VDE4105, EN50549-1, AS 4777.2, GB/T 34120, GB/T 34133, GB/T 34129				
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2				
<b>Protection</b>					
PV Input Lightning Protection	Integrated				
PV String Input Reverse	Integrated				
Polarity Protection	Integrated				
Battery Input Lightning Protection	Integrated				
AC Output Lightning Protection	Integrated				
Battery Input Reverse Polarity Protection	Integrated				
Insulation Resistor Detection	Integrated				
Residual Current Monitoring Unit	Integrated				
Output Over Current Protection	Integrated				
Output Short-Circuit Protection	Integrated				
Output Over Voltage Protection	Integrated				
Anti-islanding Protection	Integrated				
<b>General Data</b>					
Net Weight	87.1KG		80KG		
Gross Weight	107.1KG		101KG		
Product Dimension	940*582*340MM				
Package Dimension	1114*774*469MM				
Protection Degree	IP65				
Operating Temperature Range	-40 to 60°C(> 50°C Derating)				
Humidity	0~ 95 % (No Condensation)				
Cooling	Smart Cooling				
Communication with BMS	RS485,CAN				
Monitor Module	WiFi/GPRS				
Installation Style	Wall-mounted				
Warranty	10 Years				

\*Refer to Felicitysolar's Warranty Policy for applicable conditions.

# High-voltage Hybrid Solar Inverter

IVGM Series | IVGM20~60KHP3G2-US

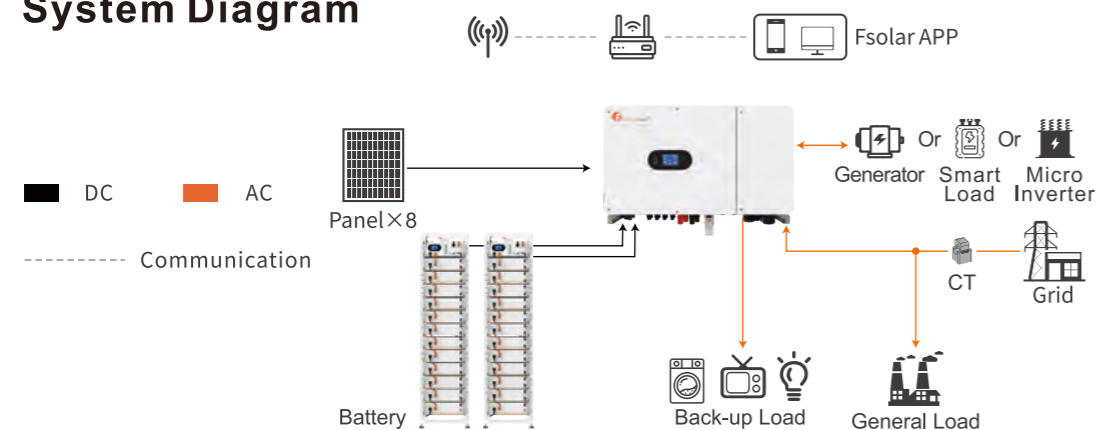
## Three Phase



### Features

- Supports WiFi monitoring and Fsolar smart cloud monitoring system.
- Customizable battery charge / discharge scheduling.
- Seamless power supply switching within 10ms.
- Configurable parameters and working mode via LCD touch screen.
- Programmable multiple operation modes: On grid, off grid and UPS.
- Multi-string PV input, maximum solar energy harvest.
- Programmable supply priority for battery or grid.
- 2 independent battery inputs, effectively reducing inter-cluster circulation.
- Wide battery voltage input and high battery charge and discharge current up to 100A(50A+50A).
- Programmable generator port, support smart load and micro inverter access.
- IP65 protection level.
- 12 pcs in parallel maximum.
- Auto restart while AC is recovering.

### System Diagram



### Specifications

Model	IVGM60KHP3G2-US	IVGM50KHP3G2-US	IVGM40KHP3G2-US	IVGM26KHP3G2-US	IVGM20KHP3G2-US
<b>Battery Input Data</b>					
Battery Type	LFP (LiFePO4)				
Battery Voltage Range	160~800Vdc				
Max. Charging/Discharging Current	50+50(A)				
Max. Charging/Discharging Power	55 kW				
Number of Battery Input	2				
BMS Communication	CAN/RS485				
<b>PV String Input Data</b>					
Max. PV Input Power	80kW	80kW	80kW	80kW	80kW
Max. PV Input Voltage	1000Vdc				
Min. PV Input Voltage	150Vdc				
Start-up Voltage	180Vdc				
Rated DC Input Voltage	600Vdc				
MPPT Range	150~850Vdc				
Full Load DC Voltage Range	555~850Vdc	555~850Vdc	555~850Vdc	555~850Vdc	555~850Vdc
PV Input Current	36+36+36+36(A)				
Max. PV Isc	55+55+55+55(A)				
No.of MPP Trackers	4				
No.of Strings Per MPP Tracker	2				
<b>AC Input/Output Data</b>					
Max. AC Input/Output Power	60 kW	50 kW	40 kW	26 kW	20 kW
Max. AC Input/Output Current	72.2 A	60.2 A	48.1 A	72.2 A	55.5 A
Rated AC Voltage	277/480 Vac (-20%~+15%)			120/208 Vac (-20%~+15%)	
AC Wiring Mode	3L+N+PE				
Rated AC Frequency	50 /60 Hz (45~55Hz/55~65Hz)				
Peak Power (off-grid)(W)	1.5 time of rated power, 10S				
Backup Transfer Time	10ms(adjustable)				
Max. AC Passthrough Current (grid to load)(A)	200 (A)				
Parallel Compatible	Up to 12 in parallel				
<b>Safety and Standards</b>					
Surge Protection Level	TYPE II(DC), TYPE III(AC)				
Over Voltage Category	OVC II(DC), OVC III(AC)				
Certification Standard	UL 1741-2021 (UL1741SB), CSA C22.2 No 107.1-16, IEEE 1547-2018 & 1547a-2020 & 1547.1-2020 (SRD V2.0), UL 1741 CRD-PCS, UL1699B, CEC, SGIP, CSIP				
<b>Protection</b>					
PV Input Lightning Protection	Integrated				
PV String Input Reverse Polarity Protection	Integrated				
PV DC Disconnect Switch — NEC 240.15	Integrated				
PV Rapid Shutdown Control — NEC 690.12	Integrated				
PV Arc Fault Detection — NEC 690.11	Integrated				
Battery Input Lightning Protection	Integrated				
Battery Input Reverse Polarity Protection	Integrated				
Ground Fault Detection — NEC 690.41	Integrated				
Residual Current Monitoring Unit	Integrated				
Output Over Current Protection	Integrated				
Output Shorted Protection	Integrated				
Output Over Voltage Protection	Integrated				
Anti-islanding Protection	Integrated				
AC Output Lightning Protection	Integrated				
<b>General Data</b>					
Net Weight	87.1 KG/192 lb.				
Gross Weight	107.1 KG/236 lb.				
Product Dimension	940*582*340mm / 37.0 × 22.9 × 13.4in				
Package Dimension	1,114*774*469mm / 43.9 × 30.5 × 18.5in				
Protection Degree	IP65/NEMA 3R				
Operating Temperature Range	-40 to 60 °C (> 50 °C derating) / -40°F to 140°F (>122.0°F derating)				
Humidity	0 ~ 95 % (No condensation)				
Cooling	Smart Cooling				
Altitude	3000 m (> 2000 m derating) / 9,843 ft (> 6,562 ft derating)				
Monitor Module	WiFi/GPRS				
Installation Style	Wall-mounted				
Warranty	10 Years				

\*Refer to Felicitysolar's Warranty Policy for applicable conditions.

# Portable Power Station

HOPE Series | HOPE1000

Low-voltage



## Features

- 3-in-1 Design: inverter, LFP battery, and MPPT controller in one unit.
- Long-term investment: achieve energy freedom and enjoy brighter life.
- Portable and Light: only 8.7kg, easy to carry and use anywhere.
- Long Battery Life: 8,000 cycles for lasting performance.
- Extended Runtime: powers small to medium devices for 2–3 days with 1kWh capacity.
- Plug & Play: just connect your devices and use instantly.
- Effective Heat Dissipation: equipped with ventilation holes.
- Dual Charging Options: charge via grid power or solar PV.
- Quiet and Eco-friendly: clean power without noise or pollution.

## Scenarios



Small Households



Camping



Small Stores

## Specifications

Model	HOPE1000
Rated Power	250W
Rated Battery Capacity	1kWh
AC Input Voltage	150-264Vac
AC Input Frequency	45-55Hz
AC Charging Power	250W
AC Output Voltage	230Vac±10%
Operating Frequency	50Hz
PV Input Voltage	12-36V
Max. PV Input Power	200W
Battery	LiFePO4
Battery Capacity	314Ah
Shelf Time	1 Year (Fully-charged)
Weight	8.7kg
Dimension	210x130x288mm
Operating Temperature	0-45°C
Operating Altitude	<2000m
Humidity	95%
IP Level	IP20
Certification	UN38.3
Protection	Overcharge and overdischarge protection Overcurrent protection Overload protection Short circuit protection Fault protection

\*Disclaimer: This product is currently in pilot production. Final specifications, design, and features may differ from those presented here.  
\*Refer to Felicitysolar's Warranty Policy for applicable conditions.

## Product Display



3-in-1 Design



Easy to Carry and Use Anywhere



Dual Charging via Grid Power or PV



AC Bypass Mode

# LiFePO4 Battery

FLA Series | FLA12100&12171/12280-EU

Low-voltage



## Features

- Scalable expansion up to 16 pcs in parallel.
- Flexible Installation: floor-mounted.
- LiFePO4: higher safe performance and longer cycle life.
- Multiple protection with built-in smart BMS, and fuse.
- Compatible with leading inverter brands.
- Up to 5-year long warranty.

## Scenarios



RV



Small Boat



Small Stores



Small Offices



Small Farms

## Specifications

Model	FLA12100	FLA12171-EU	FLA12280-EU
Battery Type	LiFePO4		
Nominal Energy	1.28kWh	2.2kWh	3.6kWh
Nominal Voltage	12.8V	12.8V	12.8V
Operating Voltage	11.2V-14.4V	11.2V-14.4V	11.2V-14.4V
Recommend Charge/Discharge Current[1]	≤100A	≤120A	≤150A
Recommend Charge/Discharge Power[1]	≤1,250W	≤1,500W	≤1,875W
Maximum Charge/Discharge Current(15s)	150A	200A	200A
Maximum Charge/Discharge Power(15s)	1,875W	2,500W	2,500W
Scalability	Max. 16 pcs in Parallel(20.48kWh)	Max. 16 pcs in Parallel(35.2kWh)	Max. 16 pcs in Parallel(57.6kWh)
Depth of Discharge(DOD)	≥95%		
Communication	RS485/CAN		
Protection Degree	IP21		
Cycle Life[2]	≥6,000 Cycles		
Charging Temperature Range	0°C~+55 °C		
Discharging Temperature Range	-20°C~+55 °C		
Display Type	LED	LCD+LED	LCD+LED
Installation	Floor-Mounted		
Protection	Built-in smart BMS, Fuse		
Warranty Period	5 Years		
Certification	UN38.3		
Product Weight	10KG	15KG	26KG
Package Weight	12KG	18KG	29KG
Product Dimension	295X201X199MM	328X248X199MM	379X241X286MM
Package Dimension	357X263X261MM	391X310X257MM	443X305X344MM

[1] Max. Continuous Charge/Discharge Current is Affected by Temperature and SOC.

[2] Test Conditions: 0.2C Charging/Discharging @25°C,80% DOD

\*Product specifications may vary during continuous improvements. Please contact us for latest details.

\*Refer to Felicitysolar's Warranty Policy for applicable conditions.

## Product Display



Longer Lasting LiFePO4 Battery



Support 16 Pcs in Parallel



Real-time Status via LCD Screen & LED



Wide Inverter Compatibility

# LiFePO4 Battery

FLA Series | FLA24100~24460-EU

Low-voltage



(The battery's size varies according to its capacity.)

## Features

- Scalable expansion up to 15 pcs in parallel.
- Built-in WiFi for remote monitor the battery pack data.
- Flexible Installation: wall-mounted or floor-mounted.
- LiFePO4: higher safe performance and longer cycle life.
- Multiple protection with built-in smart BMS, breaker and fuse.
- Compatible with leading inverter brands.
- Up to 10-year long warranty.

## Scenarios



Houses



Off-grid Cabins



Small Stores



Small Offices



Small Farms

## Specifications

Model	FLA24100-EU	FLA24171-EU	FLA24230-EU	FLA24280-EU	FLA24460-EU
Battery Type	LiFePO4				
Nominal Energy	2.56kWh	4.4kWh	5.85kWh	7.15kWh	11.7kWh
Nominal Voltage	25.6V	25.6V	25.6V	25.6V	25.6V
Operating Voltage	22.4-28.8V	22.4-28.8V	22.4-28.8V	22.4-28.8V	22.4-28.8V
Max. Continuous Charge/Discharge Current [1]	100A	120A	150A	150A	200A
Peak Charge/Discharge Current (15s)	150A	150A	200A	200A	300A
Max. Charge/Discharge Power (15s)	2,500W	3,000W	3,840W	3,840W	5,000W
Scalability	Max. 15 pcs in Parallel(38.4kWh)	Max. 15 pcs in Parallel(66kWh)	Max. 15 pcs in Parallel(88.5kWh)	Max. 15 pcs in Parallel(107.25kWh)	Max. 15 pcs in Parallel(177kWh)
Depth of Discharge (DOD)	≥95%				
Communication	CAN2.0/RS485/WIFI/Bluetooth				
Protection Degree	IP21				
Cycle Life	≥6,000 Cycles				
Charging Temperature Range	0°C~+55 °C				
Discharging Temperature Range	-20°C~+55 °C				
Display type	LCD+LED				
Installation	Wall-Mounted / Floor-Mounted				
Protection	Built-in Smart BMS, Breaker, Fuse				
Warranty Period	10 Years				
Certification	UN38.3				
Product Weight	27KG	39KG	52.5KG	71KG	93KG
Package Weight	30KG	44KG	57KG	90KG	113KG
Product Dimension	454X380X154MM	482X433X194MM	527X400X280MM	700X430X253MM	783X405X274MM
Package Dimension	543X472X232MM	600X555X282MM	646X522X358MM	780X550X427MM	900X525X450MM

[1] Max. Continuous Charge/Discharge Current is Affected by Temperature and SOC.

\*Product specifications may vary during continuous improvements. Please contact us for latest details.

\*Refer to Felicitysolar's Warranty Policy for applicable conditions.

## Product Display



Real-time status via LCD Display



Built-in WiFi/Bluetooth for Remote Monitoring



Support Wall Mounted Installation



Wide Inverter Compatibility

# LiFePO4 Battery

FLA Series | FLA48100-SA

Low-voltage



## Features

- LiFePO4: higher safe performance and longer cycle life.
- Enhanced safety with aerosol fire extinguishing system.
- Multiple protection with built-in smart BMS, breaker and fuse.
- Built-in WiFi / bluetooth for real-time monitoring.
- Scalable expansion up to 15 pcs in parallel.
- Compatible with leading inverter brands.
- External battery fuse design for easy replacement.
- Flexible Installation: wall-mounted / floor-mounted.

## Scenarios



Houses



Off-grid Cabins



Small Stores



Small Offices



Small Farms

## Specifications

Model	FLA48100-SA
Battery Type	LiFePO4
Energy	5.12kWh
Nominal Voltage	51.2V
Operating Voltage	44.8-57.6V
Recommend Charge/Discharge Current[1]	≤100A
Recommend Charge/Discharge Power[1]	≤5,000W
Maximum Charge/Discharge Current(15s)	150A
Maximum Charge/Discharge Power(15s)	7,500W
Scalability	Max. 15 pcs in Parallel(76.8kWh)
Depth of Discharge(DOD)	≥95%
Communication	CAN2.0/RS485/WIFI/Bluetooth
Protection Degree	IP21
Cycle Life[2]	≥ 6000 Cycles
Charging Temperature Range	0°C~+55 °C
Discharging Temperature Range	-20°C~+55 °C
Display	LCD+LED
Installation	Wall-Mounted / Floor-Mounted
Protection	Built-in smart BMS, Breaker, Fuse
Warranty[3]	10 Years
Product Weight	48KG
Package Weight	55KG
Product Dimension	663X400X178MM
Package Dimension	757X497X252MM

[1]Recommend charge/discharge current/power is affected by temperature and SOC.

[2]Test conditions: 0.2c charging/Discharging @25°C, 80% DOD.

[3] Refer to Felicitysolar's Warranty Policy for applicable conditions.

## Product Display



Built-in WiFi/Bluetooth for Remote Monitoring



Aerosol Fire Extinguishing System



Support Wall Mounted Installation



Wide Inverter Compatibility

# LiFePO4 Battery

FLA Series | FLA48100~48230-EU

Low-voltage



(The battery's size varies according to its capacity.)

## Features

- Built-in fire protection system.
- Scalable expansion up to 15 pcs in parallel.
- Built-in WiFi for remote monitor the battery pack data.
- LiFePO4: Higher safe performance and longer cycle life.
- Multiple Protection with built-in smart BMS, breaker and fuse.
- Compatible with leading inverter brands.
- Up to 10-year long warranty.

## Scenarios



Houses



Off-grid Cabins



Small Stores



Small Offices



Small Farms

## Specifications

Model	FLA48100-EU	FLA48171-EU	FLA48230-EU
Battery Type			
Nominal Energy	5.12kWh	8.75kWh	11.7kWh
Nominal Voltage	51.2V	51.2V	51.2V
Operating Voltage	44.8-57.6V	44.8-57.6V	44.8-57.6V
Max. Continuous Charge/Discharge Current [1]	100A	120A	150A
Peak Charge/Discharge Current (15s)	150A	150A	200A
Max. Charge/Discharge Power (15s)	7,500W	6,000W	7,500W
Scalability	Max. 15 pcs in Parallel(76.8kWh)	Max. 15 pcs in Parallel(131.5kWh)	Max. 15 pcs in Parallel(177kWh)
Depth of Discharge (DOD)		≥95%	
Communication		CAN2.0/RS485/WIFI/Bluetooth	
Protection Degree		IP21	
Cycle Life		≥ 6000 Cycles	
Charging Temperature Range		0°C~+55 °C	
Discharging Temperature Range		-20°C~+55 °C	
Display Type		LCD+LED	
Installation		Wall-Mounted / Floor-Mounted	
Protection		Built-in smart BMS, Breaker, Fuse	
Warranty Period		10 Years	
Certification		IEC 62619, IEC/EN 61000-6-1/2/3/4, UN38.3	
Product Weight	55KG	68KG	97KG
Package Weight	77KG	88KG	115KG
Product Dimension	775X425X209MM	735X433X188MM	783X450X274MM
Package Dimension	892X545X385MM	849X550X362MM	900X570X450MM

[1] Max. Continuous Charge/Discharge Current is Affected by Temperature and SOC.

\*Product specifications may vary during continuous improvements. Please contact us for latest details.

\*Refer to Felicitysolar's Warranty Policy for applicable conditions.

## Product Display



Built-in WiFi/Bluetooth for Remote Monitoring



Aerosol Fire Extinguishing System



Support Wall Mounted Installation



Wide Inverter Compatibility

# LiFePO4 Battery

FLA Series | FLA48280-EU

Low-voltage



## Features

- LiFePO4: higher safe performance and longer cycle life.
- Multiple protection with built-in smart BMS, breaker and fuse.
- Flexible Installation: floor-mounted.
- Compatible with leading inverter brands.
- Scalable expansion up to 15 pcs in parallel.
- Built-in WiFi for remote monitor the battery pack data.
- Equipped with an aerosol fire extinguishing system.
- Easily replace the battery fuse when it blows.

## Scenarios



Houses



Off-grid Cabins



Small Stores



Small Offices



Small Farms

## Specifications

Model	FLA48280-EU
Battery Type	LiFePO4
Nominal Energy	14.3kWh
Nominal Capacity	280Ah
Nominal Voltage	51.2V
Operating Voltage	44.8-57.6V
Max. Continuous Charge/Discharge Current [1]	150A
Peak Charge/Discharge Current (15s)	300A
Max. Charge/Discharge Power (15s)	7,500W
Scalability	Max. 15 pcs in Parallel(214.5kWh)
Depth of Discharge (DOD)	≥95%
Display Type	LCD
Protection Degree	IP21
Working Temperature Range	Charge: 0°C~55 °C
	Discharge: -20°C~55 °C
Storage Temperature Range	0°C~+35°C
Humidity	5%~95%
Communication	CAN2.0/RS485/WIFI/Bluetooth
Cycle Life	≥ 6000 Cycles
Installation	Floor-Mounted
Protection	Built-in Smart BMS, Breaker, Fuse
Warranty Period	10 Years
Certification	UN38.3
Product Weight	135KG
Package Weight	160KG
Product Dimension	480X1100X300MM
Package Dimension	1150X635X498MM

[1] Max. Continuous Charge/Discharge Current is Affected by Temperature and SOC.

\*Product specifications may vary during continuous improvements. Please contact us for latest details.

\*Refer to FelicitySolar's Warranty Policy for applicable conditions.

## Product Display



Real-time status via LCD Display



Aerosol Fire Extinguishing System



Support 15 Pcs in Parallel



Built-in WiFi/Bluetooth for Remote Monitoring








# LiFePO4 Battery

FLA Series | FLA48314-EU

Low-voltage



## Features

-  LiFePO4: higher safe performance and longer cycle life.
-  Built-in WiFi / bluetooth for real-time monitoring.
-  Enhanced safety with aerosol fire extinguishing system.
-  Scalable expansion up to 15 pcs in parallel.
-  Multiple protection with built-in smart BMS, breaker and fuse.
-  Compatible with leading inverter brands
-  External battery fuse design for easy replacement.

## Scenarios



Houses



Off-grid Cabins



Small Stores



Small Offices



Small Farms

## Specifications

Model	FLA48314-EU
Battery Type	LiFePO4
Nominal Energy	16kWh
Nominal Voltage	51.2V
Operating Voltage	44.8-57.6V
Max. Continuous Charge/Discharge Current [1]	160A
Peak Charge/Discharge Current (15s)	300A
Max. Charge/Discharge Power (15s)	8,000W
Scalability	Max. 15 pcs in Parallel(240kWh)
Depth of Discharge (DOD)	≥95%
Communication	CAN2.0/RS485/WIFI/Bluetooth
Protection Degree	IP21
Cycle Life	≥ 8000 Cycles (25°C±2°C,0.5C/0.5C,90%DOD,70%EOL)
Charging Temperature Range	0°C~+55 °C
Discharging Temperature Range	-20°C~+55 °C
Display Type	LCD+LED
Installation	Floor-Mounted
Protection	Built-in smart BMS, Breaker, Fuse
Warranty Period	10 Years
Certification	UN38.3
Product Weight	121.5KG
Package Weight	143.5KG
Product Dimension	435X880X247MM
Package Dimension	960X555X450MM

[1] Max. Continuous Charge/Discharge Current is Affected by Temperature and SOC.

\*Product specifications may vary during continuous improvements. Please contact us for latest details.

\*Refer to Felicitysolar's Warranty Policy for applicable conditions.

## Product Display



Built-in WiFi / Bluetooth for Remote Monitoring



Aerosol Fire Extinguishing System



External Battery Fuse Design



≥8000 High Cycle Life

# LiFePO4 Battery

FLA Series | FLA48460-EU

Low-voltage



## Features

- Scalable expansion up to 375kWh in parallel.
- Flexible Installation: floor-mounted.
- LiFePO4: Higher safe performance and longer cycle life.
- Enhanced safety with aerosol fire extinguishing system.
- Multiple Protection with built-in smart BMS, breaker and fuse.
- Compatible with leading inverter brands.
- Up to 10-year long warranty.

## Scenarios



Houses



Off-grid Cabins



Small Stores



Small Offices



Small Farms

## Specifications

Model	FLA48460-EU
Battery Type	LiFePO4
Nominal Energy	23.5kWh
Nominal Voltage	51.2V
Operating Voltage	44.8-57.6V
Max. Continuous Charge/Discharge Current [1]	200A
Peak Charge/Discharge Current (15s)	300A
Max. Charge/Discharge Power (15s)	10,000W
Depth of Discharge (DOD)	≥95%
Scalability	Max.15 pcs in Parallel(354kWh)
Communication	RS485/CAN
Protection Degree	IP21
Cycle Life [2]	≥6,000 Cycles
Charging Temperature Range	0°C-55 °C
Discharging Temperature Range	-20°C-55 °C
Display	LCD+LED
Installation Style	Floor-Mounted
Protection	Built-in Smart BMS, Breaker, Fuse
Warranty	10 Years
Certification	UN38.3
Product Weight	226KG
Package Weight	256KG
Product Dimension	718X380X990MM
Package Dimension	825X498X1163MM

[1] Max. Continuous Charge/Discharge Current is Affected by Temperature and SOC.

\*Product specifications may vary during continuous improvements. Please contact us for latest details.

\*Refer to Felicitysolar's Warranty Policy for applicable conditions.

## Product Display



Longer Lasting LiFePO4 Battery



Real-time Status via LCD Display



Support 15 Pcs in Parallel



Wide Inverter Compatibility

# LiFePO4 Battery

FLB Series | FLB24100/24230WG1

Low-voltage



## Features

- Remote monitoring of battery pack data via built-in WiFi/Bluetooth.
- LiFePO4: Higher safe performance and longer cycle life.
- High-rate charging/discharging delivers fast energy flow and sustained power.
- CCS welding lowers battery internal resistance for enhanced performance.
- Easily replace the battery fuse when it blows.
- Equipped with an aerosol fire extinguishing system.
- Scalable expansion up to 32 pcs in parallel.
- Multiple Protection with built-in smart BMS, breaker and fuse.
- Compatible with leading inverter brands.
- Resist harsh environment with IP65-rate protection.

## Scenarios



Houses



Off-grid Cabins



Small Stores



Small Offices



Small Farms

## Specifications

Model	FLB24100WG1	FLB24230WG1
Battery Type	LiFePO4	
Nominal Energy	2.56kWh	5.85kWh
Nominal Capacity	100Ah	230Ah
Nominal Voltage	25.6V	
Operating Voltage	22.4~28.8V	
Recommend Charge/Discharge Current	50A	100A
Max. Continuous Charge/Discharge Current[1]	100A	150A
Peak Charge/Discharge Current(15s)	150A	200A
Scalability	Max. 32 pcs in Parallel(81.92kWh)	Max. 32 pcs in Parallel(188.8kWh)
Depth of Discharge(DOD)	≥95%	
Display Type	LED	
Protection Degree	IP65	
Working Temperature Range	Charge: 0°C~+55 °C Discharge: -20°C~+55 °C	
Storage Temperature Range	0°C~+35°C	
Humidity	5%~95%	
Altitude	≤ 2000M	
Communication	CAN2.0/RS485/WIFI/Bluetooth	
Cycle Life	≥6,000 Cycles(25°C +2°C,0.5C/0.5C,90%DOD,70%EOL)	
Installation	Wall-Mounted / Floor-Mounted	
Protection	Built-in Smart BMS, Breaker, Fuse	
Warranty Period	10 Years	
Certification	UN38.3	
Product Weight	29.3KG	53KG
Package Weight	32.9KG	58KG
Product Dimension	540X375X150MM	540X375X261MM
Package Dimension	642X477X253MM	642X477X340MM

[1] Max. Continuous Charge/Discharge Current is Affected by Temperature and SOC.

\*Product specifications may vary during continuous improvements. Please contact us for latest details.

\*Refer to Felicitysolar's Warranty Policy for applicable conditions.

## Product Display



Patented External Fuse Design



Aerosol Fire Extinguishing System



Built-in WiFi/Bluetooth for Remote Monitoring



IP65 Protection Level

# LiFePO4 Battery

FLB Series | FLB48206WG1-H

Low-voltage



## Features

- Remote monitoring of battery pack data via built-in WiFi / bluetooth.
- LiFePO4: higher safe performance and longer cycle life.
- High-rate charging/discharging delivers fast energy flow and sustained power.
- CCS welding lowers battery internal resistance for enhanced performance.
- Scalable expansion up to 32 pcs in parallel.
- Multiple protection with built-in smart BMS, breaker and fuse.
- Compatible with leading inverter brands.
- Resist harsh environment with IP65-rate protection.
- Easily replace the battery fuse when it blows.
- Equipped with an aerosol fire extinguishing system.
- Heating module for restoring battery to its working temp.

## Scenarios



Houses



Off-grid Cabins



Small Stores



Small Offices



Small Farms

## Specifications

Model	FLB48206WG1-H
Battery Type	LiFePO4
Nominal Energy	10.5kWh
Nominal Voltage	51.2V
Operating Voltage	44.8-57.6V
Max. Charge/Discharge Current[1]	Charge 160A Discharge 160A
Peak Charge/Discharge Current	300A @ 15s
Max. Charge/Discharge Power	Charge 8200W Discharge 8200W
Depth of Discharge(DOD)	95%
Scalability	Up to 32 units in parallel
Communication	CAN2.0/RS485/WIFI/Bluetooth
Protection Level	IP65
Cycle Life	≥6000@ 25°C
Operating Temperature	Charge -20~55°C Discharge -20~55 °C
Display	LED
Installation	Wall-Mounted, Floor-Mounted
Protection	BMS, Fuse, Breaker, MX+OF
Warranty[2]	10 Years
Net Weight	91.5kg
Gross Weight	101kg
Product Dimension	715×450×258MM
Package Dimension	808×546×352MM

[1] The current is affected by temperature and SOC.

[2] Refer to Felicitysolar's Warranty Policy for applicable conditions.

## Product Display



Patented External Fuse Design



Aerosol Fire Extinguishing System



Built-in WiFi/Bluetooth for Remote Monitoring



IP65 Protection Level

# LiFePO4 Battery

FLB Series | FLB48100/230WG1(-H) & FLB48314TG1(-H)

Low-voltage



## Features

- Remote monitoring of battery pack data via built-in WiFi / bluetooth.
- LiFePO4: higher safe performance and longer cycle life.
- High-rate charging/discharging delivers fast energy flow and sustained power.
- CCS welding lowers battery internal resistance for enhanced performance.
- Scalable expansion up to 32 pcs in parallel.
- Multiple protection with built-in smart BMS, breaker and fuse.
- Compatible with leading inverter brands.
- Resist harsh environment with IP65-rate protection.
- Easily replace the battery fuse when it blows.
- Equipped with an aerosol fire extinguishing system.
- Optional heating module for restoring battery to its working temp (FLB48100WG1-H~FLB48314TG1-H model).

## Scenarios



Houses



Off-grid Cabins



Small Stores



Small Offices



Small Farms

## Specifications

Model	FLB48100WG1/FLB48100WG1-H	FLB48230WG1/FLB48230WG1-H	FLB48314TG1/FLB48314TG1-H
Battery Type	LiFePO4		
Nominal Energy	5.12kWh	11.7kWh	16kWh
Nominal Capacity	100Ah	230Ah	314Ah
Nominal Voltage	51.2V		
Operating Voltage	44.8~57.6V		
Recommend Charge/Discharge Current	50A	100A	80A
Max. Continuous Charge/Discharge Current[1]	100A	150A	160A
Peak Charge/Discharge Current(15s)	150A	200A	200A
Scalability	Max. 32 pcs in Parallel(163.84kWh)	Max. 32 pcs in Parallel(374.4kWh)	Max. 32 pcs in Parallel(512kWh)
Depth of Discharge(DOD)	≥95%		
Display Type	LED		
Protection Degree	IP65		
Working Temperature Range	FLB48100WG1 Charge: 0°C~+55 °C Discharge: -20°C~+55 °C FLB48100WG1-H Charge/Discharge: -20°C~+55 °C	FLB48230WG1 Charge: 0°C~+55 °C Discharge: -20°C~+55 °C FLB48230WG1-H Charge/Discharge: -20°C~+55 °C	FLB48314TG1 Charge: 0°C~+55 °C Discharge: -20°C~+55 °C FLB48314TG1-H Charge/Discharge: -20°C~+55 °C
Storage Temperature Range	0°C~+35°C		
Humidity	5%~95%		
Altitude	≤ 2000m		
Communication	CAN2.0/RS485/WIFI/Bluetooth		
Cycle Life	≥6,000 Cycles(25°C +2°C,0.5C/0.5C,90%DOD,70%EOL)		≥8,000 Cycles
Installation	Wall-Mounted / Floor-Mounted		Floor-Mounted
Protection	Built-in smart BMS, Breaker, Fuse		
Warranty Period	10 Years		
Certification	UN38.3		
Product Weight	48.5KG	91KG	121KG
Package Weight	53KG	111KG	143KG
Product Dimension	650X450X174MM	683X450X258MM	895X450X235MM
Package Dimension	752X552X253MM	778X548X438MM	958X548X424MM

[1] Max. Continuous Charge/Discharge Current is Affected by Temperature and SOC.

\*Product specifications may vary during continuous improvements. Please contact us for latest details.

\*Refer to Felicitysolar's Warranty Policy for applicable conditions.

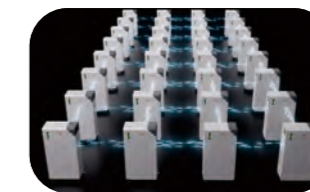
## Product Display



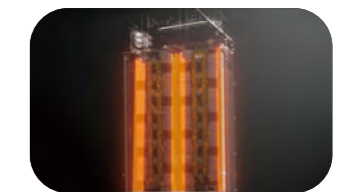
Aerosol Fire Extinguishing System



IP65 Protection Level



Scalable expansion up to 32 pcs in parallel



Optional Thermal Module (FLB48100WG1-H~FLB48314TG1-H model)

# LiFePO4 Battery

FLB Series | FLB48280TG1(-H)

Low-voltage



## Features

- Remote monitoring of battery pack data via built-in WiFi / bluetooth.
- LiFePO4: higher safe performance and longer cycle life.
- High-rate charging/discharging delivers fast energy flow and sustained power.
- CCS welding lowers battery internal resistance for enhanced performance.
- Scalable expansion up to 32 pcs in parallel.
- Multiple protection with built-in smart BMS, breaker and fuse.
- Compatible with leading inverter brands.
- Resist harsh environment with IP65-rate protection.
- Easily replace the battery fuse when it blows.
- Equipped with an aerosol fire extinguishing system.
- Optional heating module for restoring battery to its working temp (FLB48280TG1-H model)

## Scenarios



Houses



Off-grid Cabins



Small Stores



Small Offices



Small Farms

## Specifications

Model	FLB48280TG1	FLB48280TG1-H
Battery Type	LiFePO4	
Nominal Energy	14.3kWh	
Nominal Voltage	51.2V	
Operating Voltage	44.8-57.6V	
Max. Charge/Discharge Current[1]	Charge 150A Discharge 150A	
Peak Charge/Discharge Current(15s)	300A @ 15s	
Max. Charge/Discharge Power	Charge 7680W Discharge 7680W	
Depth of Discharge(DOD)	95%	
Scalability	Up to 32 units in parallel	
Communication	CAN2.0/RS485/WIFI/Bluetooth	
Protection Level	IP65	
Cycle Life	≥8000@ 25°C	
Operating Temperature	Charge: 0~55°C / Discharge: -20~55 °C	Charge: -20~55°C / Discharge: -20~55 °C
Display	LED	
Installation	Floor-Mounted	
Protection	BMS, Fuse, Breaker, MX+OF	
Warranty[2]	10 Years	
Net Weight	118Kg	
Gross Weight	140.5Kg	
Product Dimension	450 × 895 × 235MM	
Package Dimension	958 × 548 × 440MM	

[1] The current is affected by temperature and SOC.

[2] Refer to Felicitysolar's Warranty Policy for applicable conditions.

## Product Display



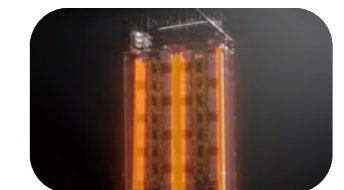
Aerosol Fire Extinguishing System



IP65 Protection Level



Scalable expansion up to 32 pcs in parallel



Optional Thermal Module (FLB48280TG1-H)

# LiFePO4 Battery

FLS Series | FLS48050SG1

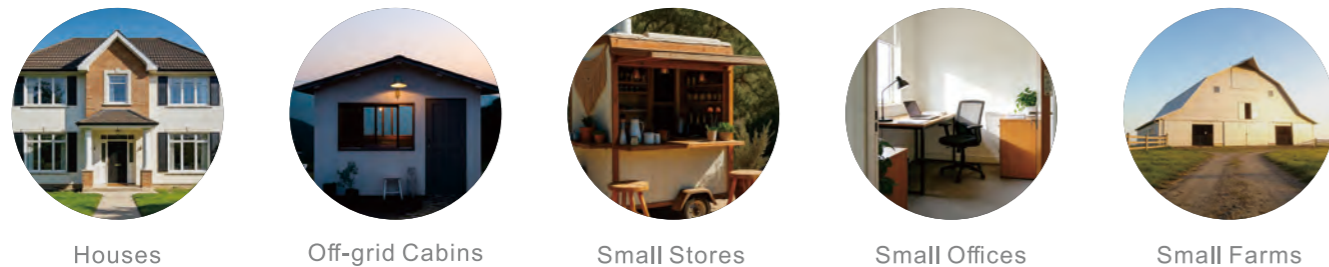
Low-voltage



## Features

- LiFePO4: higher safe performance and longer cycle life.
- Multiple Protection: built-in smart BMS, breaker and fuse.
- Modular design for easy installation and increased capacity.
- Flexible Installation: floor-mounted.
- Aerosol Fire Extinguishing System.
- CCS welding lowers battery internal resistance for enhanced performance.
- Wide Compatibility: compatible with leading inverter brands.
- High Scalability: capacity up to 10.24kWh.
- Built-in WiFi: remote monitor of the battery pack data.
- Resist harsh environment with IP65-rate protection.

## Scenarios



Houses

Off-grid Cabins

Small Stores

Small Offices

Small Farms

## Specifications

Model	FLS48050SCG1	FLS48050SMG1	FLS48050SG1M2	FLS48050SG1M3	FLS48050SG1M4
Battery Type	LiFePO4				
Module Nominal Energy	2.56kWh				
Module Nominal Capacity	50Ah				
Module Nominal Voltage	51.2V				
Number of Battery Modules	1	1	2	3	4
System Nominal Energy	2.56kWh	2.56kWh	5.12kWh	7.68kWh	10.24kWh
System Nominal Voltage	51.2V				
System Operating Voltage	44.8-57.6V				
Recommend Charge/Discharge Current	25A	25A	40A	40A	40A
Max. Continuous Charge/Discharge Current[1]	50A	50A	80A	80A	80A
Peak Charge/Discharge Current(15S)	100A	100A	100A	100A	100A
Scalability	Max. 4 pcs in Parallel(10.24kWh)				
Depth of Discharge(DOD)	≥95%				
Display Type	Control Module: LCD/Battery Module: LED*4				
IP Rating of Enclosure	IP65				
Working Temperature Range	Charge: 0°C~55 °C				
	Discharge: -20°C~55 °C				
Storage Temperature Range	0°C~+35°C				
Humidity	5%~95%				
Altitude	≤ 2000m				
Communication	CAN2.0/RS485/WIFI/Bluetooth				
Cycle Life[2]	≥ 6000 Cycles				
Installation	Floor-Mounted				
Protection	Built-in Smart BMS, Breaker, Fuse				
Warranty Period	10 Years				
Certification	UN38.3, CE-EMC, IEC 62619				
Control Module FLS48050SCG1	Product Weight Approximate	31KG			
	Package Weight Approximate	40KG			
	Product Dimension	530X350X180 MM			
	Package Dimension	642X462X337 MM			
Battery Module FLS48050SMG1	Battery Designation	IFpP/41/150/102/[1P16S]M/-10+50/95			
	Product Weight Approximate	31KG			
	Package Weight Approximate	36KG			
	Product Dimension	530X350X175 MM			
Package Dimension	642X462X293 MM				

[1] Max. Continuous Charge/Discharge Current is Affected by Temperature and SOC.

[2] Test Conditions: 0.2C Charging/Discharging @25°C, 80% DOD.

\*Product specifications may vary during continuous improvements. Please contact us for latest details.

\*Refer to Felicitysolar's Warranty Policy for applicable conditions.

## Product Display



IP65 Protection Level



Aerosol Fire Extinguishing System



Real-time Status via LCD Display



Module Design for Easy Expansion

# LiFePO4 Battery

FLS Series | FLS48100SG2

Low-voltage



## Features

- External fuse design for easy replacement.
- Build-in aerosol fire extinguishing system.
- Build-in WiFi for real-time monitoring.
- Equipped with over-voltage trip protection.
- Flexible installation: stack-mounted or floor-mounted.
- LiFePO4: higher safe performance and longer cycle life.
- Max. 8 units in parallel.
- Compatible with leading inverter brands.

## Scenarios



Houses



Off-grid Cabins



Small Stores



Small Offices



Small Farms

## Specifications

Model	FLS48100SG2							
Battery Type	LiFePO4							
Module Nominal Energy	5.12kWh							
Module Nominal Capacity	100Ah							
Module Nominal Voltage	51.2V							
Number of Battery Modules	1	2	3	4	5	6	7	8
System Nominal Energy	5.12kWh	10.24kWh	15.36kWh	20.48kWh	25.6kWh	30.72kWh	35.84kWh	40.96kWh
System Nominal Voltage	51.2V							
System Operating Voltage	44.8-57.6V							
Recommend Charge/Discharge Current	50A	100A	150A	200A	250A	300A	350A	400A
Max. Continuous Charge/Discharge Current[1]	60A	120A	180A	240A	300A	360A	400A	400A
Peak Charge/Discharge Current(15S)	100A	200A	300A	400A	500A	600A	700A	800A
Scalability	Max.8 pcs in Parallel(40.96kWh)							
Depth of Discharge(DOD)	≥95%							
Display Type	Control Module: LCD/Battery Module: LED*4							
Protection Level	IP21							
Working Temperature Range	Charge: 0°C~55 °C							
	Discharge: -20°C~55 °C							
Storage Temperature Range	0°C~+35°C							
Humidity	5%~95%							
Altitude	≤ 2000M							
Communication	CAN2.0/RS485/WIFI/Bluetooth							
Cycle Life[2]	≥ 6000 Cycles							
Installation	Stack-Mounted/Floor-Mounted							
Protection	Built-in Smart BMS, Breaker, Fuse							
Warranty Period[3]	10 Years							
Control Module FLS48100SCG2	Product Weight Approximate	46KG						
	Package Weight Approximate	60KG						
	Product Dimension	600X450X180 MM						
	Package Dimension	712X562X333 MM						
Battery Module FLS48100SMG2	Product Weight Approximate	46KG						
	Package Weight Approximate	50KG						
	Product Dimension	600X450X180 MM						
	Package Dimension	712X562X298 MM						

[1] Max. Continuous Charge/Discharge Current is Affected by Temperature and SOC.

[2] Test Conditions: 0.2C Charging/Discharging @25°C, 80% DOD.

[3] Conditions apply, refer to Felicitysolar Warranty policy.

\*Product specifications may vary during continuous improvements. Please contact us for latest details.

\*Refer to Felicitysolar's Warranty Policy for applicable conditions.

## Product Display



Multiple Protections



Real-time Monitoring



External Fuse Design



Max.8 Pcs in Parallel

# LiFePO4 Battery

FLH Series | FLH48100UG2

High-voltage



## Features

- Supports WiFi monitoring and Fsolar smart cloud monitoring system.
- Enhanced safety with aerosol fire extinguishing system.
- Automatically identifies virtual addresses without DIP switch settings.
- Quickly identify faulty battery module on LCD screen.
- Rack-mounted design, available in multiple layers with integrated grounding.
- CCS Technology for better system performance.
- Per cluster: 16 battery packs in series (81.92 kWh).
- System max: Up to 16 clusters in parallel (1.3 MWh).

## Scenarios



Small and Mid-sized Factories



Community Hospitals



Neighborhood Supermarkets



Farms



Hotels

## Specifications

Model	FLH48100UG2			
Battery Type	LiFePO4			
Nominal Energy	5.12kWh			
Nominal Voltage	51.2V			
Nominal Capacity	100Ah			
Number of Battery Modules	5(Min)	8	12	16(Max) <sup>[1]</sup>
System Nominal Voltage	256V	409.6V	614.4V	819.2V
System Operating Voltage	232~288V	371.2~460.8V	556.8~691.2V	742.4~921.6V
System Energy	25.6kWh	40.96kWh	61.44kWh	81.92kWh
System Usable Energy	23.04kWh	36.86kWh	55.3kWh	73.73kWh
Rated DC Power	25.6kW	40.96kW	61.44kW	81.92kW
Recommend Charge/Discharge Current	50A			
Max. Continuous Charge/Discharge Current[2]	100A			
Depth of Discharge(DOD)	90%			
Display Type	LED+LCD(Touch)			
IP Rating of Enclosure	IP21			
Working Temperature Range	Charge:0°C~+55°C			
	Discharge:-20°C~+55°C			
Storage Temperature Range	0°C~+35°C			
Humidity	5%~95%			
Altitude	≤3000M			
Cycle Life[3]	≥ 6000 Cycles			
Installation	Rack-Mounting			
Protection	Built-in Smart BMS, Breaker, Fuse			
Communication Port	CAN2.0/RS485/WIFI/Bluetooth			
Warranty Period[4]	10 Years			
Certification	CE/IEC 62619/UN38.3			
Control Module FLH48100UCG2	Product Dimension	482.6x565x150MM		
	Package Dimension	687x562x269MM		
	Product Weight Approximate	17.5KG		
	Package Weight Approximate	24.7KG		
Battery Module FLH48100UMG2	Product Dimension	482.6x565x133MM		
	Package Dimension	687x562x250MM		
	Product Weight Approximate	42.5KG		
	Package Weight Approximate	46KG		
	Battery Designation[5]	IFpP/54/150/120/[(1P16S)NS]M/-20+50/90		
Rack FLH48100R13G2	Product Dimension	590×532×2087.5MM (13th Floor)		
	Package Dimension	657×138×2167MM		
	Product Weight Approximate	49KG		
	Package Weight Approximate	57KG		
Rack FLH48100R9G2	Product Dimension	590×532×1515.5MM (9th Floor)		
	Package Dimension	657×138×1595MM		
	Product Weight Approximate	37.7KG		
	Package Weight Approximate	43.2KG		

[1] Currently, The Battery Supports a Maximum of 16 BMUs. For the Entire Energy Storage System, Confirm the Inverter's Maximum Supported Voltage Range to Determine the Maximum Number of BMUs that Can Be Installed

[2] Max. Continuous Charge/Discharge Current/Power is Affected by Temperature and SOC.

[3] Test Conditions: 0.5C Charging/Discharging @25±2°C, EOL70%.

[4] Refer to Felicitysolar's Warranty Policy for applicable conditions.

[5] "N" Means the Number of Battery Packs Connected Series and Should not Exceed 16. (N≤16)

\*Product specifications may vary during continuous improvements. Please contact us for latest details.

# LiFePO4 Battery

FLH Series | FLH96050SG2(-H)

High-voltage



## Features

- Built-in WiFi / bluetooth: remote monitoring of battery pack data.
- Up to 6 units in series per cluster(30.72kWh), max 16 clusters in parallel(491.52kWh).
- Optional heating module for restoring battery to its working temp (FLH96050SG2-H model).
- Equipped with an aerosol fire extinguishing system.
- Suitable for outdoor use with IP65 protection level.
- Battery modules automatic addressing without manual dip-switch setup.
- 12V debug port for safer and faster repair.
- USB & WiFi maintenance options for convenient after-sales support.
- Integrated grounding design without multiple grounding cables.
- Equipped with balancing module to keep new and old batteries consistent.
- Wide Compatibility: Compatible with leading inverter brands.

## Scenarios



Small and Mid-sized Factories



Community Hospitals



Neighborhood Supermarkets



Farms



Hotels

## Specifications

Model	FLH96050SG2/FLH96050SG2-H				
Battery Type	LiFePO4				
Module Energy	5.12kWh				
Module Capacity	50Ah				
Module Nominal Voltage	102.4V				
Number of Battery Modules	2	3	4	5	6
System Energy	10.24kWh	15.36kWh	20.48kWh	25.6kWh	30.72kWh
System Usable Energy	9.21kWh	13.82kWh	18.43kWh	23.04kWh	27.64kWh
System Nominal Voltage	204.8V	307.2V	409.6V	512V	614.4V
System Operating Voltage	185.6-230.4V	278.4-345.6V	371.2-460.8V	464-576V	556.8-691.2V
Recommend Charge/Discharge Current	25A	25A	25A	25A	25A
Max. Continuous Charge/Discharge Current[1]	50A	50A	50A	50A	50A
Depth of Discharge(DOD)	90%				
Display Type	LED+LCD(Touch)				
IP Rating of Enclosure	IP65				
Operating Temperature Range	Charge: 0°C~+55 °C				
	Discharge: -20°C~+55 °C				
Storage Temperature Range	0°C~+35°C				
Humidity	5%~95%				
Altitude	≤ 2000M				
Cycle Life[2]	≥ 6000 Cycles				
Installation	Stacking-Mounting/Floor-Mounting				
Protection	Built-in Smart BMS, Breaker				
Communication	CAN2.0/RS485/WIFI/Bluetooth				
Warranty Period[3]	10 Years				
Certification	UN38.3, IEC 62619, IEC 60730-1, IEC 62040-1, IEC/EN 61000-6-1/2/3/4				
Control Module FLH96050SCG2 FLH96050SCG2-H	Net Weight	12.5KG			
	Gross Weight(with base)	24.5KG			
	Product Dimension	600x385x200MM			
Battery Module FLH96050SMG2 FLH96050SMG2-H	Package Dimension(with base)	712x497x352MM			
	Battery Designation [4]	IFpP/41/150/102/[(1P32S)NS]M/-10+50/90			
Battery Module FLH96050SMG2 FLH96050SMG2-H	Net Weight	57.5KG			
	Gross Weight	62KG			
	Product Dimension	600x385x260MM			
	Package Dimension(with base)	712x497x378MM			

[1] Max. Continuous Charge/Discharge Current is Affected by Temperature and SOC.

[2] Test Conditions: 0.2C Charging/Discharging @25°C, 80% DOD.

[3] Conditions Apply, Refer to Felicitysolar Warranty Policy.

[4] "N" Means the Number of Battery Packs Connected Series and Should not Exceed 6. (N≤6)

\*Product specifications may vary during continuous improvements. Please contact us for latest details.

\*Refer to Felicitysolar's Warranty Policy for applicable conditions.

## Product Display



Built-in WiFi / Bluetooth for Remote Monitoring



Optional Heating Modules (FLH96050SG2-H model)



Support 6 Pcs in Series, Max. 16 Clusters in Parallel



High-efficiency New and Old Modules Balancing

# Lead-acid Battery

G12V100AH~200AH



## Features

- Lower self-discharge rate, extending battery life.
- Even electrolyte distribution, preventing stratification.
- Deeper discharge, maximizing lifespan.
- Lower charging current (1/3 of AGM), reducing energy use and heat.

## Scenarios



Off-grid Cabins



Small Stores



Small Offices

## Specifications

Model	G12V100AH	G12V150AH	G12V200AH
Cells Per Unit	6		
Voltage Per Unit	12		
Capacity	100Ah@10hr-rate to 1.80V per cell @25°C	150Ah@10hr-rate to 1.80V per cell @25°C	200Ah@10hr-rate to 1.80V per cell @25°C
Weight	31.5KG	42.5KG	60KG
Max. Discharge Current	1000A(5 sec)	1500A(5 sec)	2000A(5 sec)
Internal Resistance	Approx. 5.0mΩ	Approx. 4.2mΩ	Approx. 4.0mΩ
Operating Temperature Range	Discharge: -20°C~60°C Charge: 0°C~50°C Storage: -20°C~60°C		
Normal Operating Temperature Range	25°C±5°C		
Float Charging Voltage	13.6 to 13.8V DC/Unit Average at 25°C		
Recommended Maximum Charging	30A	45A	60A
Equalization and Cycle Service	14.4 to 14.6V DC/Unit Average at 25°C		
Self Discharge	GEL Batteries Can be Stored for More than 6 Months at 25°C. Self-discharge Ratio Less than 3% Per Month at 25°C. Please Charge Batteries Before Using.		
Size(MM)	330(L)x171(W)x218(H)	484(L)x241(W)x170(H)	522(L)x219(W)x240(H)
Certification	UN38.3		

\*Product specifications may vary during continuous improvements. Please contact us for latest details.

\*Refer to Felicitysolar's Warranty Policy for applicable conditions.

### Capacity Factors With Different Temperature

Temperature	-20°C	-10°C	0°C	5°C	10°C	20°C	25°C	30°C	40°C	45°C
Capacity Factor	46%	66%	76%	83%	90%	98%	100%	103%	107%	109%

### Discharge Current VS. Discharge Voltage

Final Discharge Voltage V/cell	1.75V	1.70V	1.60V
Discharge Current (A)	(A) ≤ 0.2C	0.2C < (A) < 1.0C	(A) ≥ 1.0C

Charge the Batteries at Least Once Every Five Months, If They are Stored at 25°C.

### Charging Method

Constant Voltage	-0.2Cx2h+14.4-14.7Vx24h, Max. Current 0.3C
Constant Current	-0.2Cx2h+0.1Cx7h+0.05Cx4h
Fast	-0.2Cx2h+0.3Cx3h

Bolt	M5	M6	M8
Terminal	F3 F4 F13 F18 T25 T26	F8 F11 F12-1 F15	F5 F9 F10 F12 F14 F16
Torque	6~7N-m	8~10N-m	10~12N-m

### Maintenance & Cautions

- Cycle service
- ※ Avoid battery over discharge, especially battery series connection use.
- ※ Charged with recommend voltage, ensure battery can be full recharged. In general, recharge capacity should be 1.1-1.15 times discharge capacity.
- ※ Effect of temperature on cycle charge voltage: -4mV/°C/Cell.
- ※ There are a number of factors that will affect the length of cyclic service. The most significant are depth of discharge, ambient temperature, discharge rate, and the manner in which the battery is recharged. Generally speaking, the most important factors is depth of discharge.

# Household Energy Storage System

## LFP Battery-Inverter Integrated System



### Features

- Wide PV voltage input range (90VDC-450VDC).
- Maximum PV input current increases to 25A.
- Battery charging current up to 100A.
- Pure sine wave output.
- Built-in MPPT solar charge controller.
- Compatible to mains voltage or generator power.
- Auto restart while AC is recovering.
- Overload / over temperature/ short circuit protection.
- Supports parallel connection of one to four battery packs (AI100-B5) for expansion.
- External WIFI for mobile monitoring (requires APP).
- Support parameters setting via LCD screen (input voltage/charging current/charge mode).

### Scenarios



Houses



Off-grid Cabins



Small Stores



Small Offices



Small Farms

### Specifications

Model	AI100-5048 ESS
<b>Inverter Parameters</b>	
Rated Output Power	5000VA 5000W
Nominal DC Input Voltage	48V
Nominal Input Voltage	230Vac
Nominal Input Frequency	50Hz/60Hz(Auto detection)
Parallel Capability	Yes, up to 12 units
PCS (In Progress)	CE-EMC、CE-LVD
<b>Utility Charge Mode Specifications</b>	
Nominal Input Voltage	230Vac
Nominal Output Voltage	230Vac
Input Voltage Range	90~280Vac
Max. Charge Current	100A
<b>Solar Charging &amp; Grid Charging</b>	
Max. PV Open Circuit Voltage	500V
Max. Input Power	6000W
Max. Solar Charging Current	100A
Max. Charging Current(PV+Grid)	100A
Max. Input Current	25A
<b>General Specifications</b>	
Protection Level	IP20
Net Weight (KG)	17.8KG
Product Size(D*W*H)	710x350x180MM
Package Dimension(D*W*H)	792x507x278MM
<b>Battery Parameters</b>	
Capacity	5.12kWh
Battery Type	LiFePO4
Nominal Voltage	51.2V
Operating Voltage	44.8-57.6V
Recommend Charge/Discharge Current [1]	≤100A
Recommend Charge/Discharge Power [1]	≤5,000W
Maximum Charge/Discharge Current (15s)	150A
Maximum Charge/Discharge Power (15s)	7,500W
Depth of Discharge (DOD)	≥95%
Scalability	Max. 15 pcs in Parallel(76.8kWh)
Communication	RS485/CAN
Protection Level	IP21
Cycle Life [2]	≥6,000 Cycles
Display	LED
Installation	Wall-Mounted/Floor-Mounted
Protection	Built-in smart BMS, Breaker, Fuse
Warranty	5 Years
Certification	UN38.3
Net Weight	45KG
Gross Weight	49.5KG
Product Dimension	660X420X180MM
Package Dimension	822X522X278MM

[1] Recommend Charge/Discharge Current/Power is Affected by Temperature and soc.

[2] Test Conditions: 0.2C Charging/Discharging @25°C, 80% DOD.

\*Product specifications may vary during continuous improvements. Please contact us for latest details.

\*Refer to Felicitysolar's Warranty Policy for applicable conditions.

# Household Energy Storage System

## LFP Battery-Inverter Integrated System



### Features

- Pure sine wave inverter.
- Built-in MPPT solar charge controller (Supports 2 strings of solar input).
- Built-in Wi-Fi for mobile monitoring (APP is required).
- Compatible to mains voltage or generator power.
- Equipped with dual-output (Single machine mode).
- The second path of the AC output can set the output time.
- Auto restart while AC is recovering.
- Overload / over temperature/ short circuit protection.
- Inverter running without battery.
- Parallel connection quantity up to 6 units (Battery must be connected).
- Supports parallel connection of one to four battery packs (AI100-B5) for expansion.
- Support parameters setting via LCD screen (input voltage/charging current/charge mode).

### Scenarios



Houses



Off-grid Cabins



Small Stores



Small Offices



Small Farms

### Specifications

Model	AI100-8048 ESS
<b>Inverter Parameters</b>	
Rated Output Power	8000VA 8000W
Nominal DC Input Voltage	48V
Nominal Input Voltage	230Vac
Nominal Input Frequency	50Hz/60Hz(Auto detection)
Parallel Capability	Yes, up to 6units
PCS (In Progress)	CE-EMC、CE-LVD
<b>Utility Charge Mode Specifications</b>	
Nominal Input Voltage	230Vac
Nominal Output Voltage	230Vac
Input Voltage Range	90~280Vac
Max. Charge Current	150A
<b>Solar Charging &amp; Grid Charging</b>	
Max. PV Open Circuit Voltage	500V
Max. Input Power	10000W (5000W for Single PV)
Max. Solar Charging Current	150A
Max. Charging Current(PV+Grid)	150A
Max. Input Current	20A×2(MAX40A)
<b>General Specifications</b>	
Protection Level	IP20
Net Weight (KG)	26.8KG
Product Size(D*W*H)	660x500x180MM
Package Dimension(D*W*H)	792x657x278MM
<b>Battery Parameters</b>	
Capacity	5.12kWh
Battery Type	LiFePO4
Nominal Voltage	51.2V
Operating Voltage	44.8-57.6V
Recommend Charge/Discharge Current [1]	≤100A
Recommend Charge/Discharge Power [1]	≤5,000W
Maximum Charge/Discharge Current (15s)	150A
Maximum Charge/Discharge Power (15s)	7,500W
Depth of Discharge (DOD)	≥95%
Scalability	Max. 15 pcs in Parallel(76.8kWh)
Communication	RS485/CAN
Protection Level	IP21
Cycle Life [2]	≥6,000 Cycles
Display	LED
Installation	Wall-Mounted/Floor-Mounted
Protection	Built-in smart BMS, Breaker, Fuse
Warranty	5 Years
Certification	UN38.3
Net Weight	45KG
Gross Weight	49.5KG
Product Dimension	660X420X180MM
Package Dimension	822X522X278MM

[1] Recommend Charge/Discharge Current/Power is Affected by Temperature and soc.

[2] Test Conditions: 0.2C Charging/Discharging @25°C, 80% DOD.

\*Product specifications may vary during continuous improvements. Please contact us for latest details.









\*Refer to Felicitysolar's Warranty Policy for applicable conditions.

# C&I Energy Storage System

IVGM Series 50kW inverter & FLH Series 60kWh high-voltage LFP battery



## Features

-  Cabinet-based BESS with inverter connection interface.
-  Remote monitoring via Fsolar APP.
-  Fire protection module / smoke and temp detector / exhaust system
-  Built-in air-conditioning system, better thermal management
-  Auxiliary protection with external firefighting water inlet
-  Max. energy storage capacity reaching 720kWh
-  Supports single-phase input, three-phase output
-  150% unbalanced three-phase output

## Scenarios



Small and Mid-sized Factories



Community Hospitals



Neighborhood Supermarkets



Farms



Hotels

## Specifications

Model	FLH-E60
<b>System Specification</b>	
Nominal Input/Output Power	50 kW
AC Input/Output	50 /60 Hz; 3L+N+PE; 220/380,230/400 Vac
System Energy	61.44 kWh
System Usable Energy	55.3kWh
Module Capacity	100 Ah
AC Input/Output Rated Current	72.5 A
System Operating Voltage	556.8~691.2V
Number of Battery Modules	12
Humidity	5%~95%
Altitude	≤3000m
IP Rating of Enclosure	IP55
Dimension (W*D*H)	780*1056*2235mm(no contain inverter)
Weight Approximate (kg)	949kg(no contain inverter)
Installation Style	Floor-Mounted
Warranty	10 Years
<b>Battery Technical Specification</b>	
Battery Chemistry	LiFePO4
Battery Module Energy	5.12 kWh
Battery Module Nominal Voltage (V)	51.2 V
Recommend Charge/Discharge current (A)	50 A
Max.continuous Charge/Discharge current (A)	100 A
Battery Communication	CAN2.0/RS485/WIFI/Bluetooth
Storage Temperature (°C)	0~35°C
Operating Temperature Range	Charge: 0~55°C
	Discharge: -20~55°C
Depth of Discharge	90%
Cycle Life	≥6000 (0.5C Charging / Discharging@25±2°C), EOL70%)
Battery Module Certification	CE, IEC62619, UN38.3

\*Refer to Felicitysolar's Warranty Policy for applicable conditions.

## Product Display



Real-time Monitoring



Built-in Air-conditioning System



Firefighting External Water Inlet

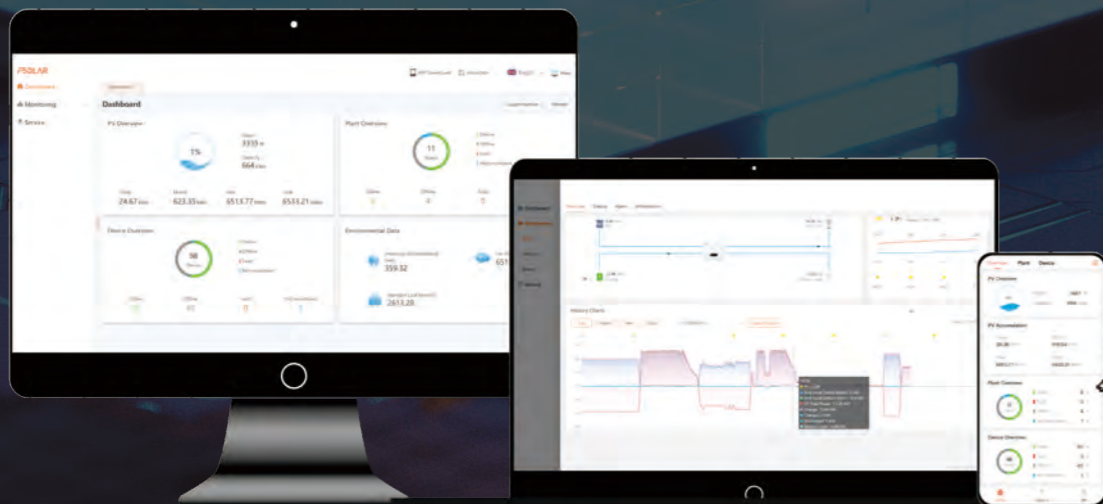


Outdoor Installation

# FSOLAR Smart Energy Management Platform



The FSOLAR smart energy management platform is designed to provide comprehensive monitoring, analysis, and management of your energy systems. It allows you to maximize energy efficiency, optimize usage, and enhance system performance.



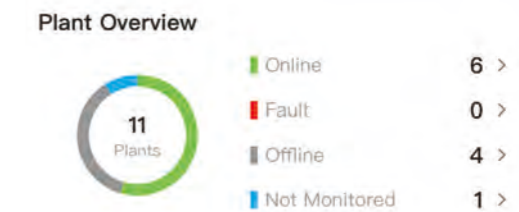
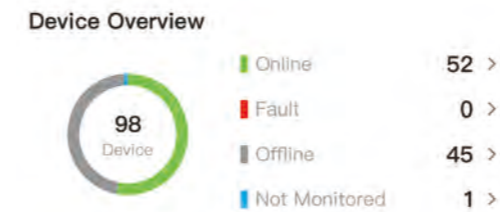
## 1. Real-time Data Insight

- Track daily, monthly, yearly and cumulative energy generation of all systems and individual units.
- Access battery pack details, including current, voltage, SOC, etc.



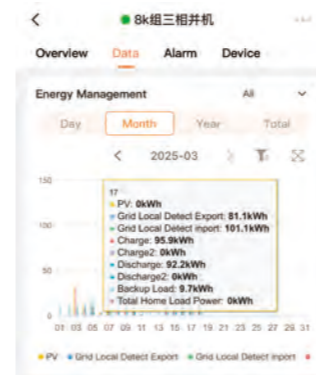
## 2. System and Device Status Monitoring

- Real-time devices status: online, offline, faulty, or unmonitored.
- Easily identify the current health and operational status of your system.



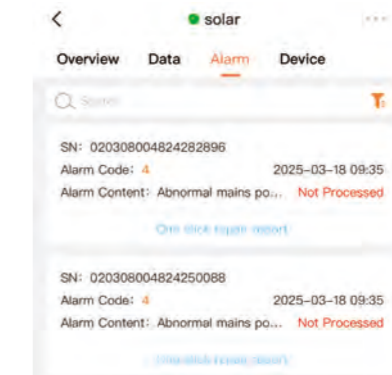
## 3. Historical Data Analysis

- Use data insights to optimize energy usage and improve efficiency.
- Export historical data for further analysis and record-keeping.



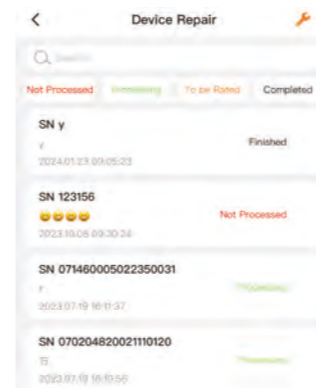
## 4. Immediate Alerts for Abnormal Situations

- Receive instant alerts for system malfunctions or abnormal conditions.
- Take immediate actions to prevent potential losses and downtime.



## 5. After-Sales Support

- Submit a request, and our support team will reply within 12 hours, offer solution within 24 hours.
- Local service points deployment for fast on-site inspection and repair services.



## 6. Open API

- Comprehensive Data Access: battery SOC, temp, device status, etc.
- Real-Time Monitoring & Alerts: empower third-party devices to build dynamic dashboards for live insights and configure automated alert.

## APP Download



# Smart WiFi DTU-S Module

2.4G WiFi



## Features

- Provides access to historical system data through centralized cloud storage
- Supports real-time data transmission to the FSOLAR platform
- Enables remote inverter monitoring and control via the FSOLAR mobile app

Note: Sold separately; not included with inverter packages.

## Product Introduction

The Smart WiFi DTU-S module enables wireless communication between off-grid inverters and the FSOLAR monitoring platform. It provides real-time alerts and detailed system insights. Compatible with Felicitysolar's inverter series: IVPM, IVPS, and IVEM-LV Series.

## Specifications

Model	IOTH2406	IOTH2407
<b>General Data</b>		
Product Dimensions (W × H × T)	98.5 × 103.2 × 27 mm	
Packaging Dimensions (W × H × T)	153 × 171 × 56 mm	
Net Weight	136.5 g	
Gross Weight	320 g	
<b>WiFi Performance</b>		
Wireless Standards	802.11b/g/n	
Working Frequency	2400-2483.5MHz	
Output Power	802.11b: 18 ± 2dBm	
	802.11g: 16 ± 2dBm	
	802.11n: 15 ± 2dBm	
Receive Sensitivity	CCK, 1 Mbps: -96 ± 2dBm	
	CCK, 11 Mbps: -85dBm	
	6 Mbps (1/2 BPSK): -88dBm	
	54 Mbps (3/4 64-QAM): -70dBm	
	HT20(MCS7): -73 ± 2dBm	
<b>Electrical Parameters</b>		
Operating Voltage	12V	
Maximum Current	500mA	
<b>Working Environment</b>		
Protection Level	IP20	
Operating Temperature	-40°C to +85°C / -40°F to +185°F	
Storage Temperature	40°C to +125°C / 104°F to 257°F, <90% RH	
<b>Application Parameters</b>		
Communication with Server	MQTT	
Supported Network	2.4G	
User Configuration Interface	FSolar APP or Website	
Data Upload Cycle	5 Minutes	
Server Domain Name	https://shine.felicitysolar.com	

## Instructions

Model	IOTH2406	IOTH2407
NAME	Smart WiFi-M	Smart WiFi-S
WiFi NETWORK	2.4G WiFi	
<b>LED status</b>		
PWR	ON — Power Supply Normal	
COM	ON — Communication Normal	
NET	ON — Connected to Data Server	

\*Product specifications may change as part of ongoing improvements. Please contact us for the latest information.








\*Refer to Felicitysolar's Warranty Policy for applicable conditions.

# MPPT Solar Charge Controller

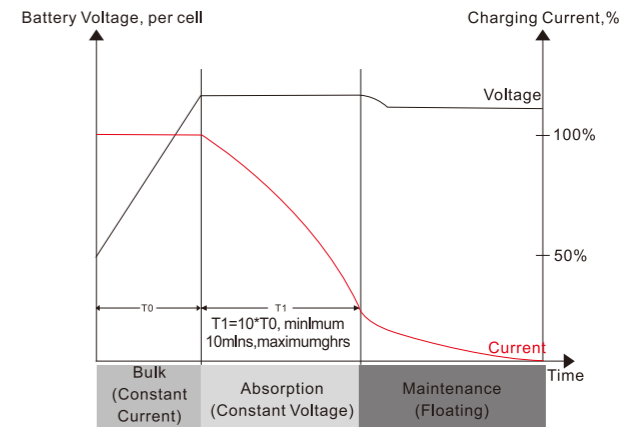
SCCM Series | SCCM15048



## Features

-  Built-in Bluetooth and WiFi.
-  IP54 protection level.
-  Max. charging current up to 150A.
-  Supports communication between battery and controller via RS485/CAN.
-  Compatible with LFP, lead-acid, AGM, and GEL batteries.
-  Automatic battery voltage detection for lead-acid, AGM, and GEL batteries.
-  Protections: PV overvoltage, battery overvoltage, and over-temperature.

## Specifications

Model	SCCM15048
<b>Electrical Specifications</b>	
Maximum Charge Current	150Amps
Nominal System Voltage	48V
Maximum Solar Input Voltage	500V
PV Start-up Voltage	120V
MPPT Voltage Range	150-450Vdc
PV Limiting Current	30A
Maximum Input Power	9000W
Transient Surge Protection	2* rated power for 5s
Protections	Solar high voltage disconnect Solar high voltage reconnect Battery high voltage disconnect Battery high voltage reconnect High temperature disconnect High temperature reconnect
<b>Battery Charging</b>	
Charging Algorithm	3-Step
Charging Stages	Bulk, Absorption, Float
Charging Curve	
<b>Mechanical and Environment</b>	
Product Size (WxHxD, mm)	422x370x140
Product Weight (KG)	9.7 KG
Outer Carton Size (W x H x D,mm)	485x464x198
Outer Carton Weight (KG)	12 (1PCS)
Warranty Period	2 Years
Ambient Temperature Range	0 °C to +55 °C
Storage Temperature	-25 °C to +75 °C
Humidity	0%-90%RH(No Condensing)
Enclosure	IP54

\*Refer to Felicitysolar's Warranty Policy for applicable conditions.

# MPPT Solar Charge Controller

SCCM-II Series | SCCM2024-II



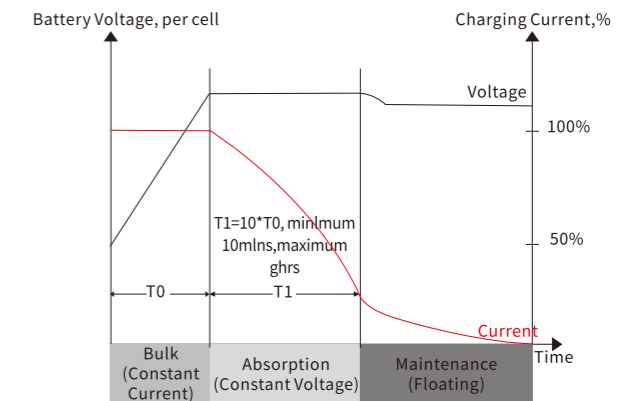
## Features

- Maximum efficiency up to 98%.
- Enhanced Battery Performance with Three-Stage Charging.
- Multiple charging currents up to 20A.
- Efficiency increasing 25%~30% with intelligent maximum power point tracking technology.

## Specifications

Model	SCCM2024-II
<b>Electrical Specifications</b>	
Maximum Battery Current	20Amps
Nominal System Voltage	12,24Vdc(Auto Detection)
Maximum Solar Input Voltage	95V
PV Start-up Voltage	15V
PV Array MPPT Voltage Range	12Vdc/24Vdc
	15-80Vdc/30-80Vdc
Maximum Input Power	12V - 280W
	24V - 550W
<b>Battery Charging</b>	
Charging Algorithm	3-Step
Charging Stages	Bulk, Absorption, Float
Temperature Compensation Coefficient	-5 mV /°C / cell (25°Cref.)
Temperature Compensation Range	0 °C to +50 °C

Charging Curve



<b>Mechanical and Environment</b>	
Product Size (WxHxD, mm)	240x170x102
Product Weight(KG)	0.9 KG
Ambient Temperature Range	0 °C to +55 °C
Storage Temperature	-25 °C to +75 °C
Humidity	0%-90%RH(No condensing)
Enclosure	IP20(Indoor & Vented)

\*Refer to Felicitysolar's Warranty Policy for applicable conditions.

# MPPT Solar Charge Controller

SCCM-III Series | SCCM3024~12048-III



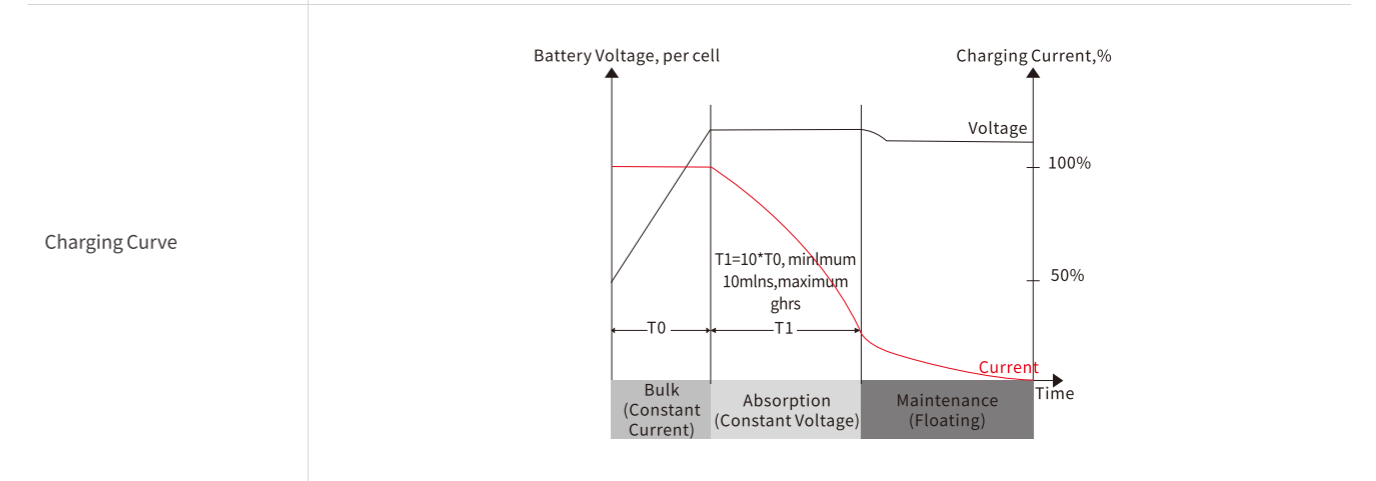
## Features

- Support parallel operation via CAN communication.
- Communicate with battery packs via RS485 communication.
- Built-in WiFi enabling remote monitoring through the app.
- Maximum efficiency up to 98%.
- Enhanced battery performance with three-stage charging.
- Efficiency increasing 25%~30% with intelligent maximum powerpoint tracking technology.

## Specifications

Model	SCCM3024-III	SCCM4524-III	SCCM4548-III	SCCM6048-III	SCCM8048-III	SCCM10048-III	SCCM12048-III
<b>Electrical Specifications</b>							
PV Start-up Voltage	20V						
Maximum Charge Current	30Amps	45Amps	45Amps	60Amps	80Amps	100Amps	120Amps
Nominal System Voltage	12,24V (Auto Detection)		12V, 24V, 48V (Auto Detection)				
Maximum Solar Input Voltage	95V		145V			165V	
MPPT Voltage Range	12Vdc/24Vdc		12Vdc/24Vdc/48Vdc			12Vdc/24Vdc/48Vdc	
	18-80Vdc/35-80Vdc		18-125Vdc/35-125Vdc 65-125Vdc			18-145Vdc/35-145Vdc 65-145Vdc	
Maximum Input Power	12V - 420W	12V - 625W	12V - 625W	12V - 825W	12V - 1100W	12V - 1375W	12V - 1650W
	24V - 830W	24V - 1250W	24V - 1250W	24V - 1650W	24V - 2200W	24V - 2750W	24V - 3300W
	/	/	48V - 2500W	48V - 3300W	48V - 4400W	48V - 5500W	48V - 6600W

<b>Battery Charging</b>							
Charging Algorithm	3-Step						
Charging Stages	Bulk, Absorption, Float						
Temperature Compensation Coefficient	-5 mV / °C / cell (25°Cref.)						
Temperature Compensation Range	0 °C to +50 °C						

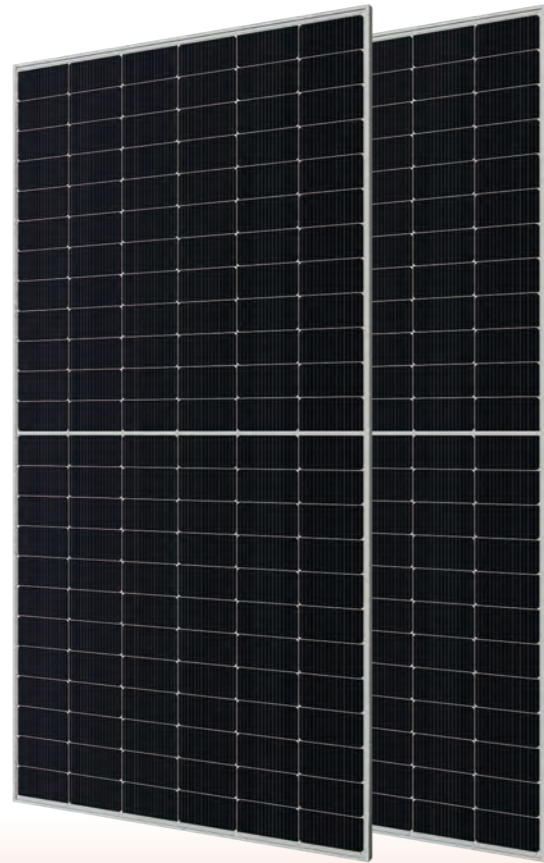


<b>Mechanical and Environment</b>							
Product Size (WxHxD, mm)	200.2x137.2x65	221x151.4x80.5	276.4x184.4x100	276.4x184.4x100	289.4x198.4x103.6	329x219x118.5	329x219x118.5
Product Weight(KG)	1 KG	1.5 KG	3.3 KG	3.3 KG	3.5 KG	5.2 KG	5.2 KG
Inner Box Size (W x H x D, mm)	240x170x102	265x188x116	308x212x125	308x212x125	322x238x140	370x250x156	370x250x156
Inner Box Weight (KG)	1.3 KG	1.9 KG	3.7 KG	3.7 KG	4 KG	5.9 KG	5.9 KG
Outer Carton Size (W x H x D, mm)	495x355x222	546x392x250	635x440x268	635x440x268	663x492x298	758x518x172	758x518x172
Outer Carton Weight (KG)	11.3(8PCS)	16.4(8PCS)	31(8PCS)	31(8PCS)	33.3(8PCS)	25.3(4PCS)	25.3(4PCS)
Ambient Temperature Range	0 °C to +55 °C						
Storage Temperature	-25 °C to +75 °C						
Humidity	0%-90%RH(No Condensing)						
Enclosure	IP20(Indoor & Vented)						

\*Refer to Felicitysolar's Warranty Policy for applicable conditions.

# Monocrystalline Solar Panels

1-72HTBD-580M



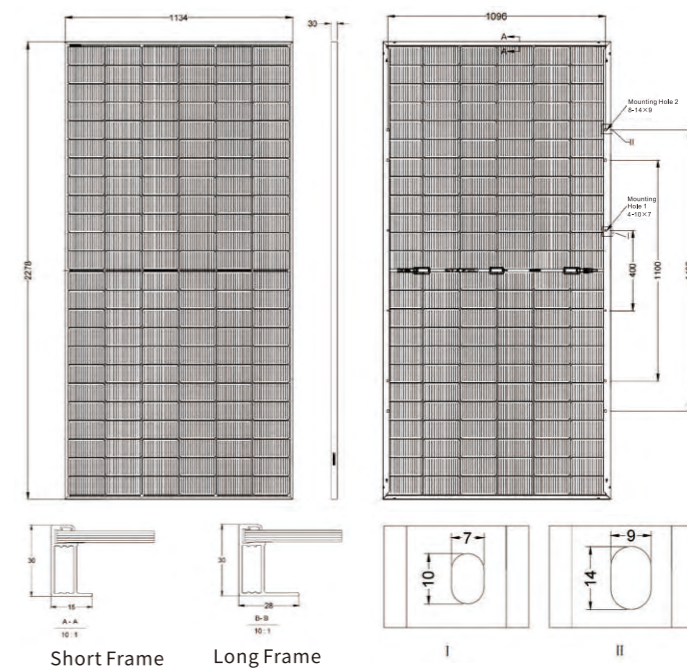
## Specifications

Model	1-72HTBD-580M
Rated Maximum Power (Pmax)	580W
Open Circuit Voltage (Voc)	51.47V
Maximum Power Voltage (Vmp)	42.59V
Short Circuit Current (Isc)	14.37A
Maximum Power Current (Imp)	13.62A
Frame	anodized aluminium alloy
Front Glass	heat strengthened coated glass (0.08in / 2.0mm)
Back Glass	heat strengthened glass (0.08in / 2.0mm)
Output Cables	TüV 1×4mm <sup>2</sup> , (+)300mm, (-)200mm (support customization)
Temperature Coefficient of Isc (α <sub>Isc</sub> )	+0.045% / °C
Temperature Coefficient of Voc (β <sub>Voc</sub> )	-0.25% / °C
Temperature Coefficient of Pmax (γ <sub>Pmp</sub> )	-0.29% / °C
Protection Level	Class II
Weight	68.34 lbs / 31.0 kg
Dimensions	89.68×44.65×1.18in / 2278×1134×30mm
Operating Conditions	
Maximum System Voltage	DC1500V (IEC)
Operating Temperature	113 ± 3.6°F / 45 ± 2°C
Maximum Series Fuse	30A
Maximum Static Load,Front	5400Pa
Maximum Static Load,Back	2400Pa
Certifications	CE,IEC 61215(2021)/IEC 61730(2023),PID
STC	Irradiance 1000W/m <sup>2</sup> , cell temperature 77°F / 25°C, spectrum AM1.5

\*Standard Test Conditions: irradiance of 1000W/m<sup>2</sup>, cell temperature at 77°F / 25°C, and AM1.5 solar spectrum

\*Refer to Felicitysolar's Warranty Policy for applicable conditions.

## Solar Panel Dimensions



## Features





- Conversion efficiency up to 23.2%.
- Strong anti-degradation: only 1% power loss in the first year, just 0.4% per year after.
- High energy output in real conditions: better temp coefficient, low-light performance, and bifacial efficiency.

# PV Combiner Box

PVCB0601/0801



## Features

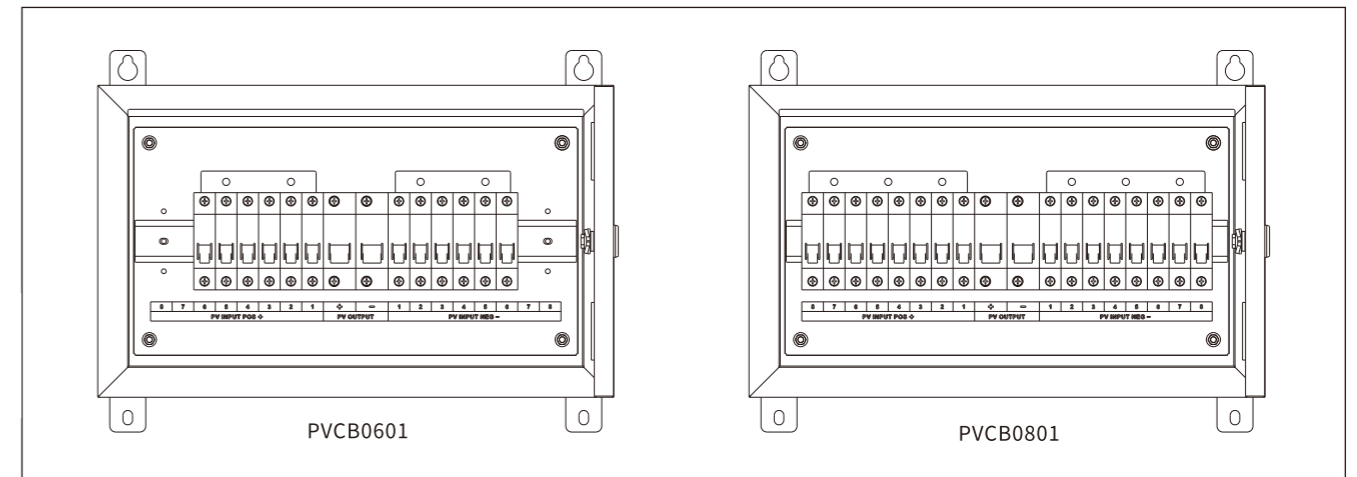
-  Electric energy gathering.
-  Group string protection.
-  Detection and protection.
-  Electricity transmission.

## Specifications

Model	PVCB0601	PVCB0801
Max. Input Voltage	500V	500V
Max. Number of Input Paths	6	8
Max. Allowable Input Current of Branch	15A	15A
Max. Output Current	100A	100A
Lightning Protection Device	Surge Switch	
Shell Material	Metal Chassis	
Input Cable Diameter	4~8mm <sup>2</sup>	
Output Cable Diameter	5~10mm <sup>2</sup>	
Protection Level	IP54	
Operating Temperature Range	-10°C~40°C	
Net Weight(KG)	5.8KG	6.3KG
Gross Weight(KG)	6.7KG	7.2KG
Product Dimension(MM)	430×260×118MM	430×260×118MM
Package Dimension(MM)	487×337×179MM	487×337×179MM

\*Refer to Felicitysolar's Warranty Policy for applicable conditions.

## Internal Schematic Diagram of the Product








# Battery Combiner Box

BTCB0402-300-HB



## Features

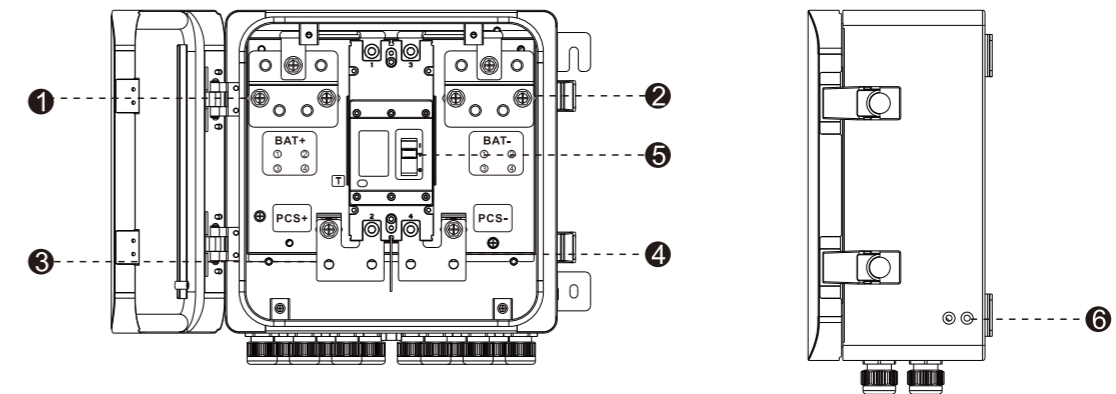
-  Fit for FLH series HV battery parallel connection
-  4-input 2-output, IP65-rated protection
-  Max. continuous rated current up to 240A
-  300A peak current ( $\leq 30\text{min}$ )
-  Enhanced safety with built-in DC circuit breaker (1000V 320A)

## Specifications

Model	BTCB0402-300-HB
Max. Imum Number of Input Paths	4-Input 2-Output
Rated Voltage of Branch[V]	1000
Maximum Continuous Rated Current (A)	240
Maximum Peak Current (A)	300( $\leq 30\text{ min}$ )
Battery Switch	PEMC-H
Shell Material	Metal chassis
Protection Level	IP65
Operating Temperature Range	-20°C~60°C
Net Weight(KG)	7.4
Gross Weight(KG)	11.5
Product Dimension(MM)	366x290x152.5
Package Dimension(MM)	410x382x230
Altitude (m)	$\leq 3000$
Cooling Method	Natural cooling
Installation Location	Indoor/Outdoor
Installation Method	Wall-mounted

\*Refer to Felicitysolar's Warranty Policy for applicable conditions.

## Overview



- 1.BAT+ input busbar
- 2.BAT- input busbar
- 3.PCS+ output busbar
- 4.PCS- output busbar
- 5.Circuit breaker (1000V 320A)
- 6.Ground Terminal

# Battery Combiner Box

BTCB0602G1/0301G1



## Features

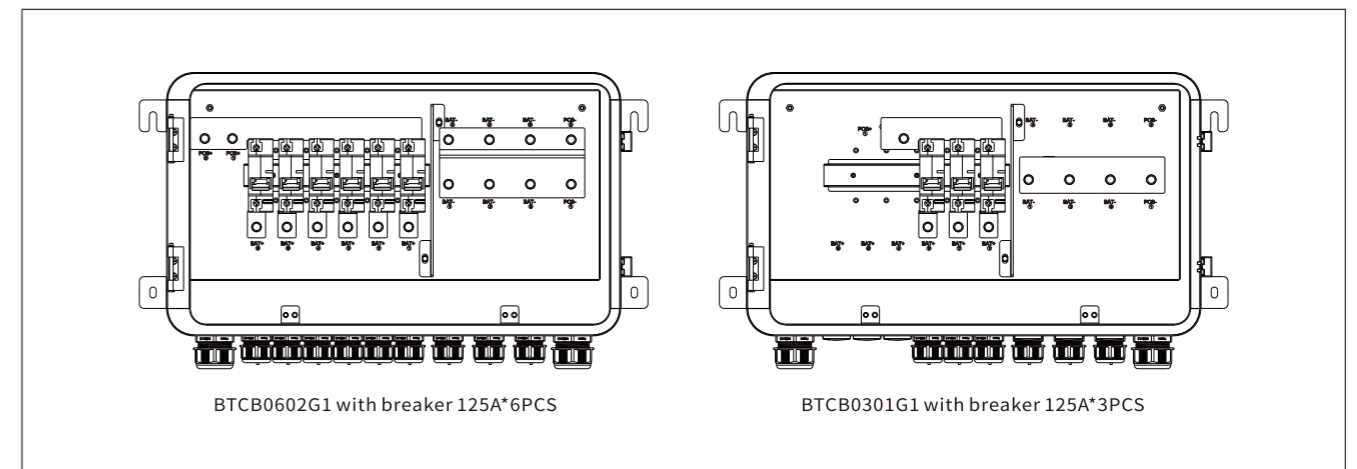
- Convenient circuit wiring.
- Superior flow expansion for higher efficiency.
- Robust high-current handling for reliable performance.

## Specifications

Model	BTCB0602G1	BTCB0301G1
Max. Imum Number of Input Paths	6	3
Rated Voltage of Branch[V]	80	80
Branch Rated Current[A]	125	125
Battery Switch	PEBS-L	PEBS-L
Shell Material	Metal Chassis	
Protection Level	IP65	
Operating Temperature Range	-10°C~50°C	
Net Weight(KG)	9KG	8.1KG
Gross Weight(KG)	11KG	10.1KG
Product Dimension(MM)	516×300×136MM	
Package Dimension(MM)	592×382×209MM	

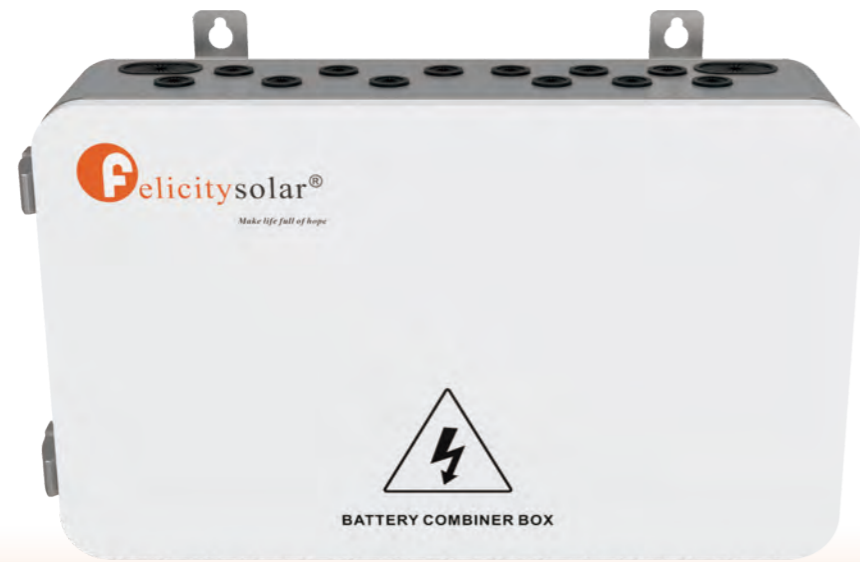
\*Refer to Felicitysolar's Warranty Policy for applicable conditions.

## Internal schematic diagram of the product



# Battery Combiner Box

BTCB0606-120/200 & BTCB0303-120/200



## Features

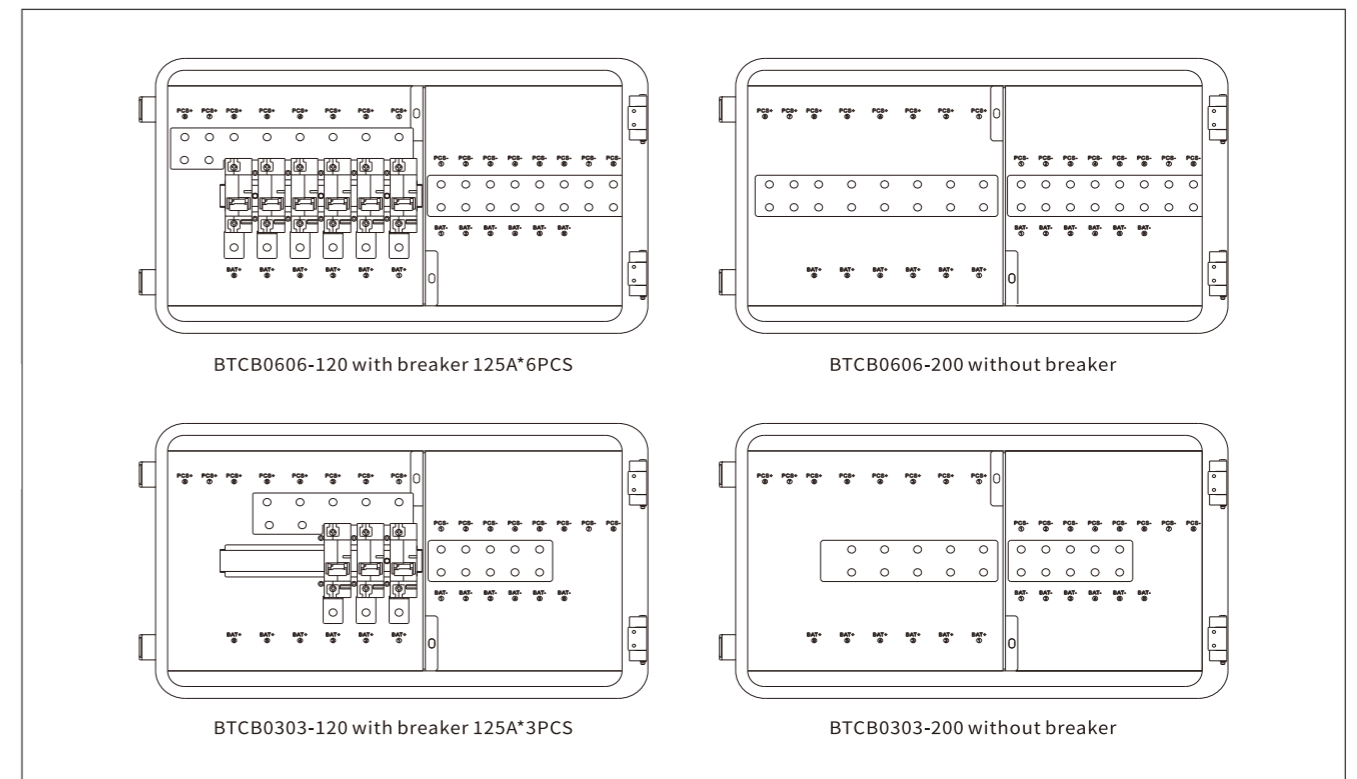
- Convenient circuit wiring.
- Superior flow expansion for higher efficiency.
- Robust high-current handling for reliable performance.

## Specifications

Model	BTCB0606-120	BTCB0606-200	BTCB0303-120	BTCB0303-200
Max. Imum Number of Input Paths	6	6	3	3
Rated Voltage of Branch[V]	80	/	80	/
Branch Rated Current[A]	125	200	125	200
Battery Switch	PEBS-L	/	PEBS-L	/
Shell Material	Metal Chassis			
Protection Level	IP21			
Operating Temperature Range	-10°C~50°C			
Net Weight(KG)	8.1KG	7.1KG	7.4KG	6.8KG
Gross Weight(KG)	9.7KG	8.7KG	9.0KG	8.4KG
Product Dimension(MM)	516×300×136MM			
Package Dimension(MM)	592×392×218MM			

\*Refer to Felicitysolar's Warranty Policy for applicable conditions.

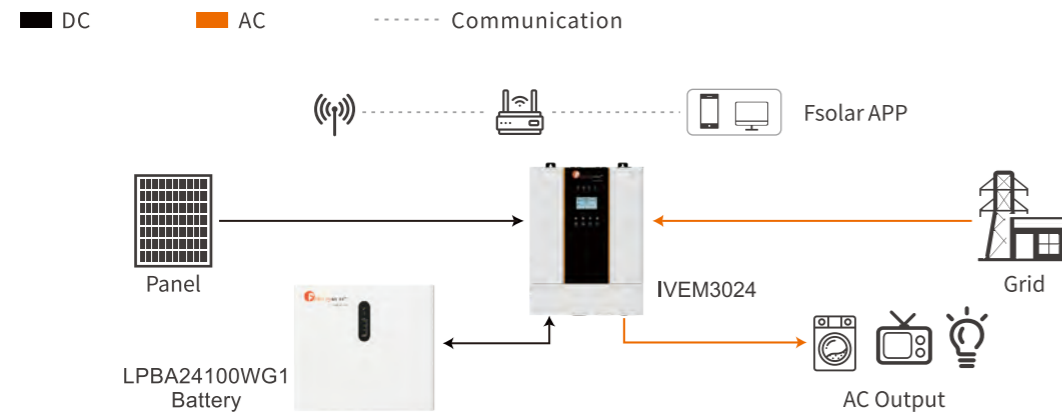
## Internal schematic diagram of the product



# Solar Energy Storage Solutions

## Off-grid Residential Energy Storage System

System Configuration: **3kW**



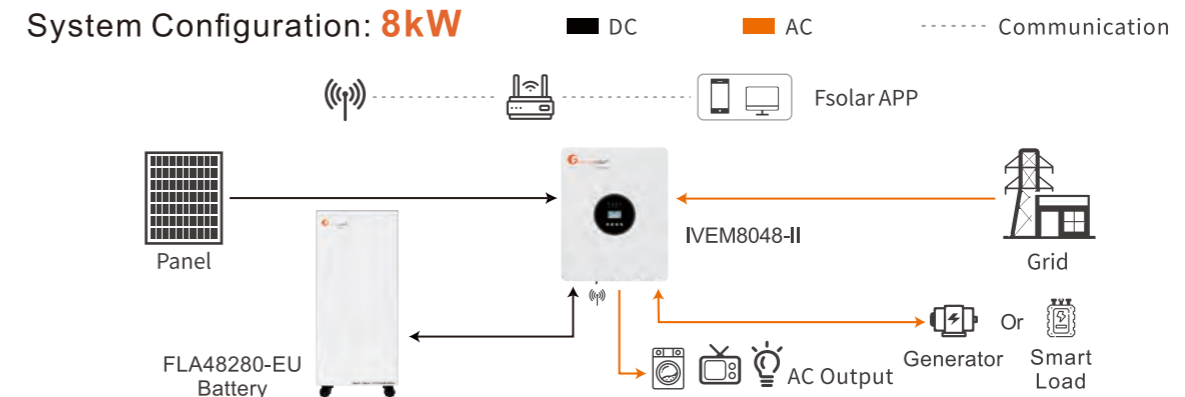
### Benefits:

- Self-generation and Self-consumption.
- Easy Maintenance & Reduced Operational Costs.
- Reliable Power Supply with Emergency Backup.



## Off-grid Residential Energy Storage System

System Configuration: **8kW**



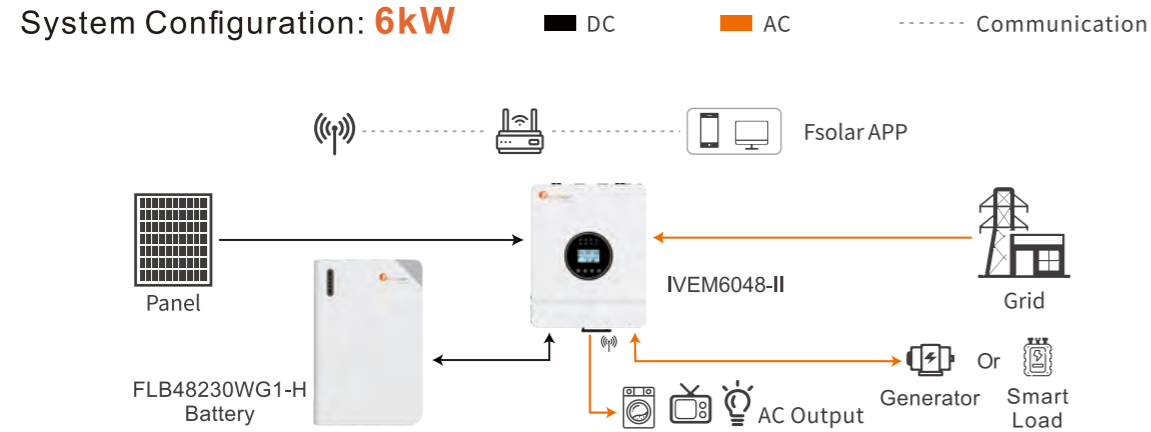
### Benefits:

- Easy Maintenance & Reduced Operational Costs.
- Reliable Power Supply with Emergency Backup.
- Flexible Configuration Based on Power Demands and Site Conditions.
- Remotely Monitor and Control the System via FsolAR App.
- Supports Smart Load Connection with Programmable GEN Port.
- Customizable Smart Load's Output Duration Time.



## Off-grid Residential Energy Storage System

System Configuration: **6kW**



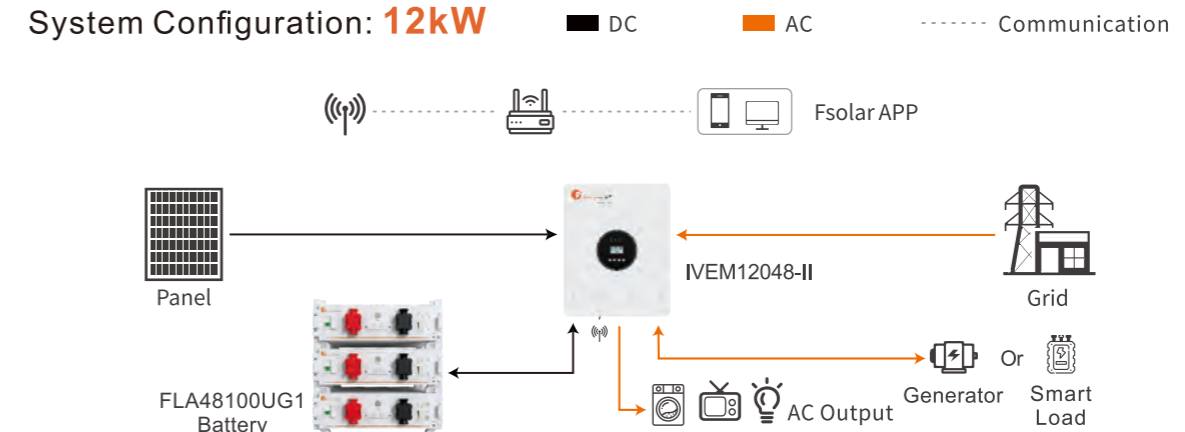
### Benefits:

- Easy Maintenance & Reduced Operational Costs.
- Reliable Power Supply with Emergency Backup.
- Flexible Configuration Based on Power Demands and Site Conditions.
- Remotely Monitor and Control the System via FsolAR App.
- Supports Smart Load Connection with Programmable GEN Port.
- Customizable Smart Load's Output Duration Time.



## Off-grid Residential Energy Storage System

System Configuration: **12kW**



### Benefits:

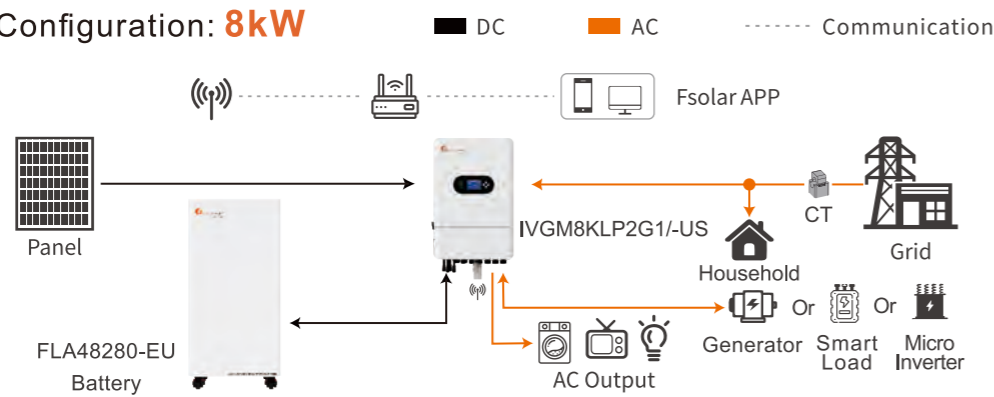
- Easy Maintenance & Reduced Operational Costs.
- Reliable Power Supply with Emergency Backup.
- Flexible Configuration Based on Power Demands and Site Conditions.
- Remotely Monitor and Control the System via FsolAR App.
- Supports Smart Load Connection with Programmable GEN Port.
- Customizable Smart Load's Output Duration Time.



# Solar Energy Storage Solutions

## Hybrid Residential Energy Storage System

System Configuration: **8kW**



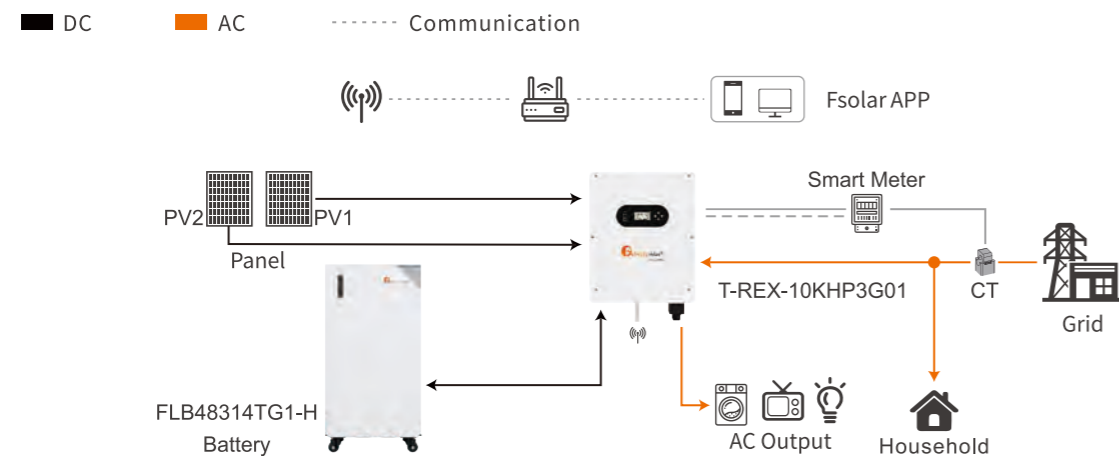
### Benefits:

- Dual-Mode Power Supply, Seamless Switching between Grid-tied and Off-grid Modes.
- Easy Maintenance & Reduced Operational Costs.
- Flexible Configuration Based on Power Demands and Site Conditions.
- Remotely Monitor and Control the System via FSOLAR App.
- Time of Use Function to Save on Electricity Cost.
- Standalone Generator Interface for Automatic Power Switching.
- Customizable Smart load' s Output Duration Time.
- AC Coupling Functionality: supports connection with grid-tied systems.



## Hybrid Residential Energy Storage System

System Configuration: **10kW**



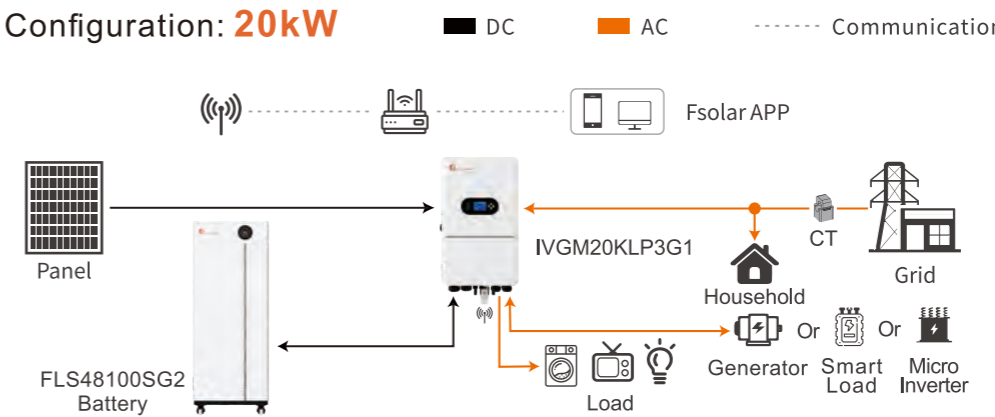
### Benefits:

- Integrated Design Combining Energy Storage, Inversion, and Charge/Discharge Control, etc.
- Simplifies Setup, Saving Both Space and Installation Costs.
- Flexible Configuration Based on Power Demands and Site Conditions.
- Remotely Monitor and Control the System via an App.



## Hybrid Residential Energy Storage System

System Configuration: **20kW**



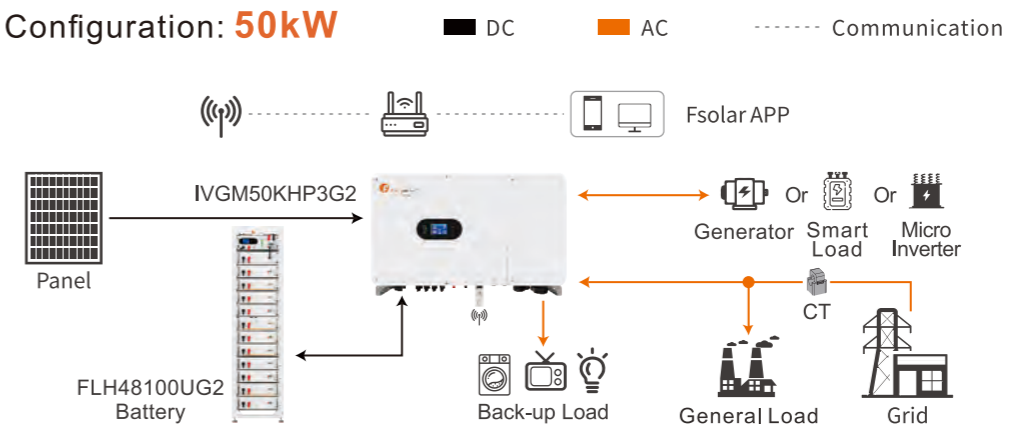
### Benefits:

- Dual-Mode Power Supply, Seamless Switching between Grid-tied and Off-grid Modes.
- Time of Use Function to Save on Electricity Cost.
- Easy Maintenance & Reduced Operational Costs.
- Flexible Configuration Based on Power Demands and Site Conditions.
- Remotely Monitor and Control the System via FsolAR App.
- AC Coupling Functionality: supports integration with grid-tied systems.



## Hybrid C&I Energy Storage System

System Configuration: **50kW**



### Benefits:

- Dual-Mode Power Supply, Seamless Switching between Grid-tied and Off-grid Modes.
- Easy Maintenance & Reduced Operational Costs.
- Flexible Configuration Based on Power Demands and Site Conditions.
- Remotely Monitor and Control the System via FSOLAR App.
- Standalone Generator Interface for Automatic Power Switching.
- Customizable Smart load' s Output Duration Time.
- AC Coupling Functionality: supports connection with grid-tied systems.



# USER CASES

## Residential Solar Energy Storage System



**Guinea**

» House » 24kW+52.5kWh



**Yemen**

» House » 24kW+30kWh



**Senegal**

» Office Building » 40kW+125kWh



**South Africa**

» Office » 24kW+15.36kWh



**England**

» House » 5kW+5.12kWh



**Thailand**

» House » 20kW+45kWh



**Saudi Arabia**

» House » 15kW+45kWh



**Senegal**

» Villa » 24kW+60kWh

# USER CASES

## Residential Solar Energy Storage System



**Ghana**

» House      » 40kW+60kWh



**South Africa**

» House      » 12kW+25kWh



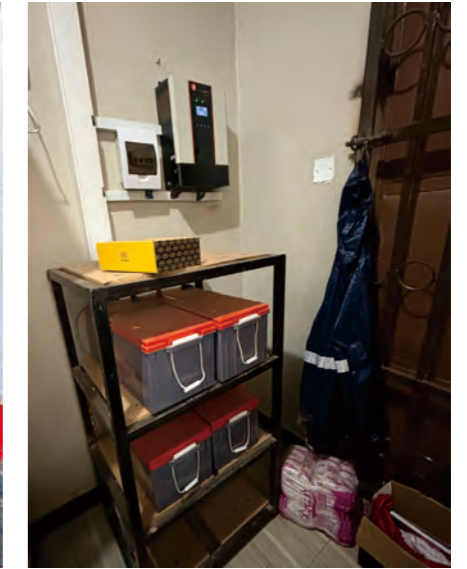
**Iraq**

» House      » 6kW+20kWh



**Mexico**

» House      » 5kW+5.12kWh



**Uganda**

» Community Bank      » 3kW+200Ah\*4



**DRC**

» House      » 18kW+80kWh



**South Africa**

» Villa      » 12kW+40.96kWh

# USER CASES

## Small to Medium C&I Solar Energy Storage System



**Mali** Paper Mills

» 150kW+184.32kWh



**Iraq** Warehouse

» 100kW+245.76kWh



**Nigeria** Small-size Factory

» 50kW+122.88kWh



**Poland** Warehouse & Office

» 100kW+122.88kWh



**South Africa** Hardware Store

» 100kW+122.88kWh



**Thailand** Entertainment Center

» 300kW+720kWh



**Mexico** Hotel

» 100kW+163.84kWh

# USER CASES

## Large-size C&I Solar Energy Storage System



**Burkina Faso**

- Farm
- 100kW+215kWh



**China**

- Industrial Park
- 1MW+2.33MWh