felicitysolar®

Make life full of hope

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Version 2026-10-09

felicitysolar®

Make life full of hope



SOLAR ENERGY STORAGE SOLUTIONS

Make life full of hope, make the world better

MEA Version (Middle East and Africa)

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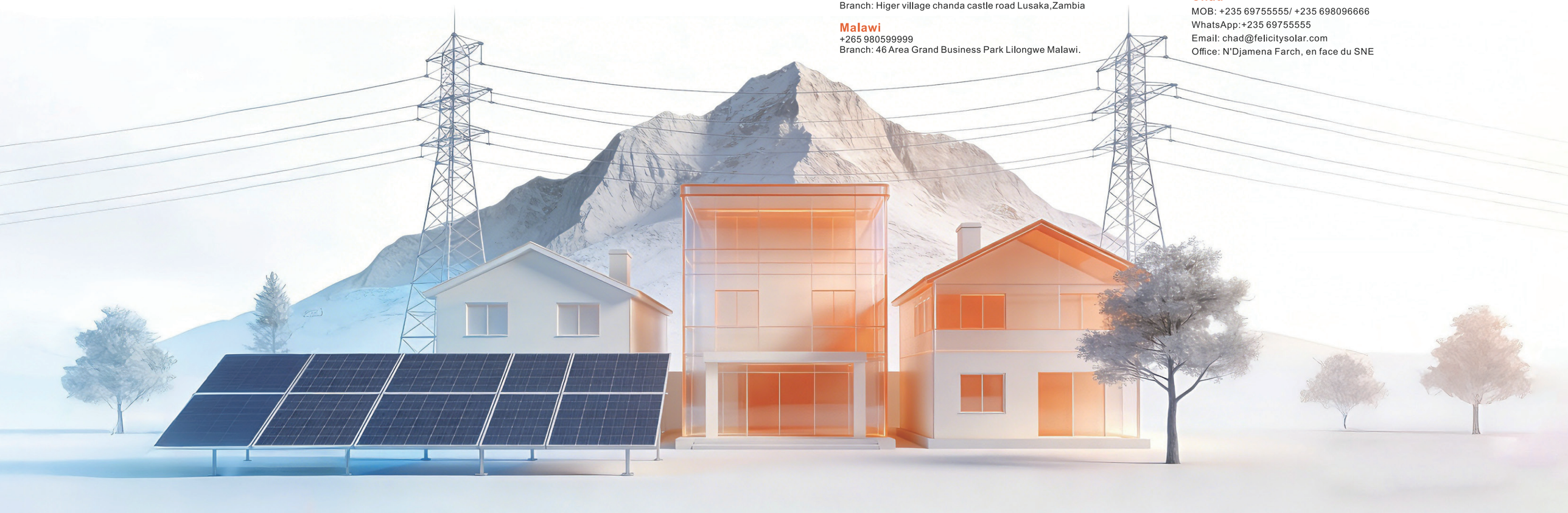
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ABOUT US

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

60+
Overseas Branches

150+
Countries & Regions Market

10%+
Technical Investment

400+
R&D Teammates



COMPANY HISTORY

felicitysolar®

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

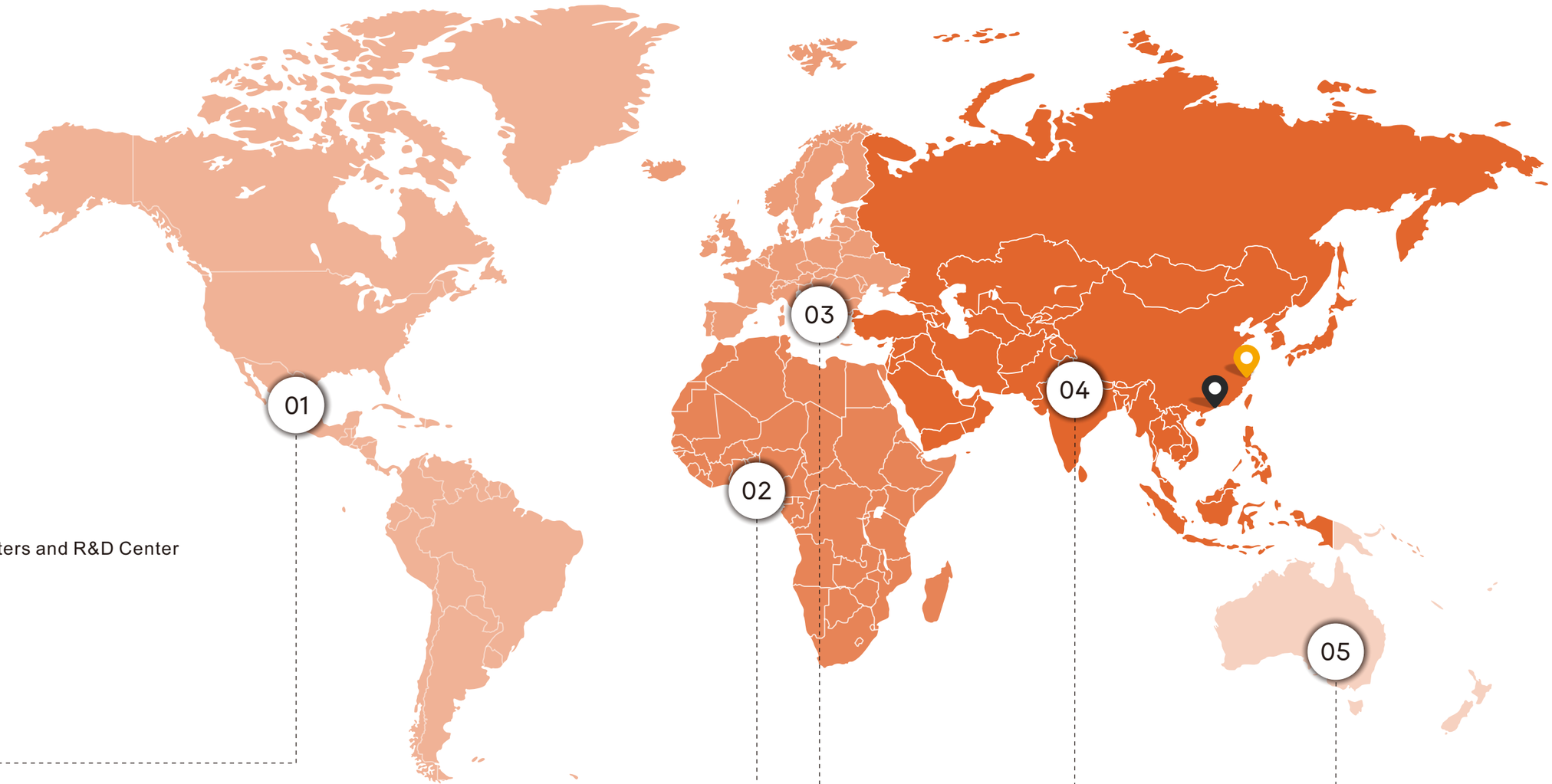
Service first

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

SUPERIORITY

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.



INVERTER COMPATIBILITY LIST



Off-grid High-frequency Solar Inverter

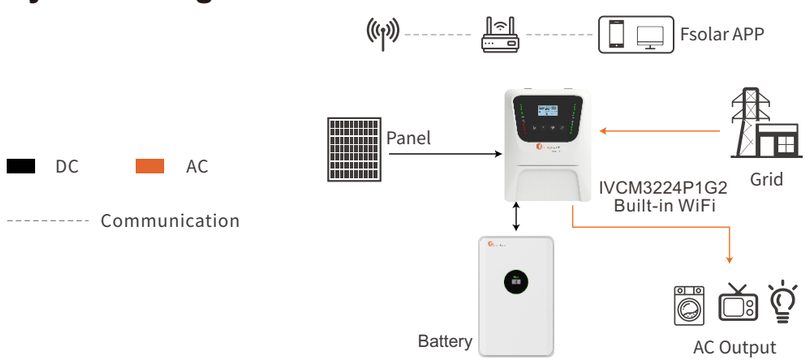
IVCM Series | IVCM2012/3224P1G2



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.
- Runs on Solar or Grid, No Battery.
- Cold start function.

System Diagram



Specifications

Model	IVCM2012P1G2	IVCM3224P1G2
Line Mode Specifications		
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
Utility Charge Mode Specifications		
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	
Solar Charging & Grid Charging		
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	
General Specifications		
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

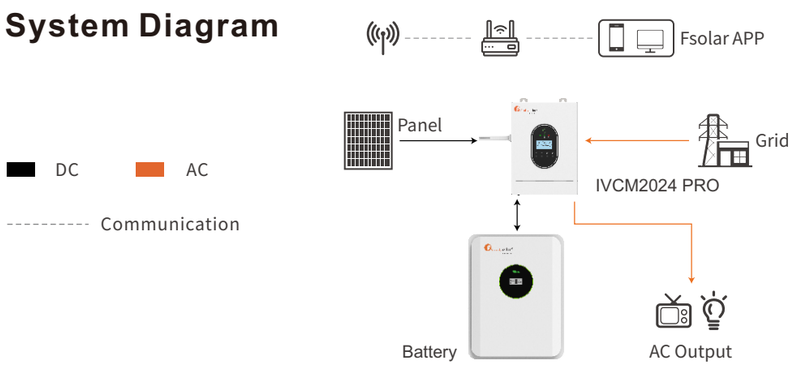
AC-230V



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
Line Mode Specifications			
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
Utility Charge Mode Specifications			
Nominal Input Voltage	230Vac		
Input Voltage Range	90-280Vac		
Nominal Output Voltage	Dependent on Battery Type		
Max. Charge Current	20A	20A	30A
Charge Current Requlation	10-20A (Adj 10A)	20-30A (Adj 10A)	20-30A (Adj 10A)
Over Charge Protection	Yes		
Solar Charging & Grid Charging			
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		
General Specifications			
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

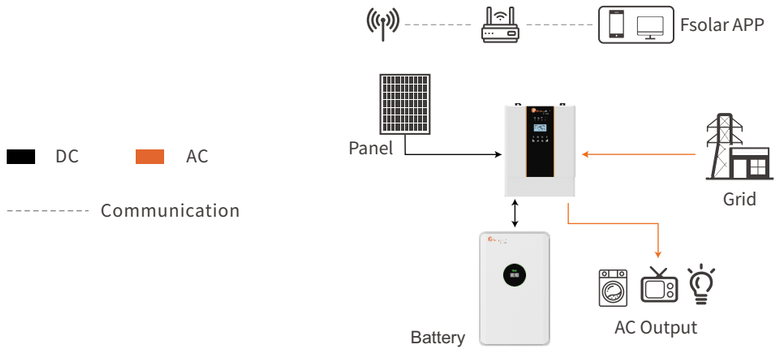
IVEM Series | IVEM3024



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.
- Runs on Solar or Grid, No Battery.
- Cold start function.

System Diagram



Specifications

Model	IVEM3024
Line Mode Specifications	
Rated Output Power(VA)	3000VA
Rated Output Power(W)	3000W
Nominal DC Input Voltage	24V
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
Utility Charge Mode Specifications	
Nominal Input Voltage	230Vac
Input Voltage Range	90-280Vac
Max. Charge Current	100A
Over Charge Protection	Yes
Solar Charging & Grid Charging	
Max. PV Open Circuit Voltage	500V
PV Voltage Working Range	120V-500V
Max. Input Power	4000W
Max. Solar Charging Current	100A
Max. Charging Current(PV+Grid)	100A
Max. Input Current	15A
Min. Startup Voltage	125V
Inverter Mode Specifications	
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
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
General Specifications	
Operating Temperature	0°C~55°C
Range Storage Temperature	-15°C~60°C
Net Weight(KG)	10.8KG
Product Dimension(MM)	395*295*129MM
Package Dimension(MM)	472*372*202MM
Certification	CE-EMC、IEC 62109-1/2、IEC 63027

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

Off-grid High-frequency Solar Inverter

IVEM-SALV Series | IVEM5048-SALV

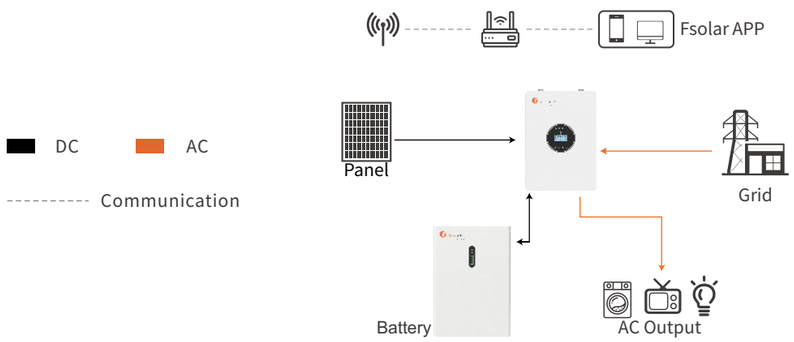


*** Spanish and portuguese versions available**

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.
- Runs on Solar or Grid, No Battery.

System Diagram



Specifications

Model	IVEM5048-SALV
Line Mode Specifications	
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
Utility Charge Mode Specifications	
Nominal Input Voltage	127Vac
Input Voltage Range	65-140Vac
Nominal Output Voltage	Dependent onbattery type
Max. Charge Current	100A
Charging Current Regulation Range	10–100A (Adjustable unit is 1A)
Overload Protection	Yes
Solar Charging & Grid Charging	
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
Inverter Mode Specifications	
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
General Specifications	
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-SAII Series | IVEM4024/6048-SAII

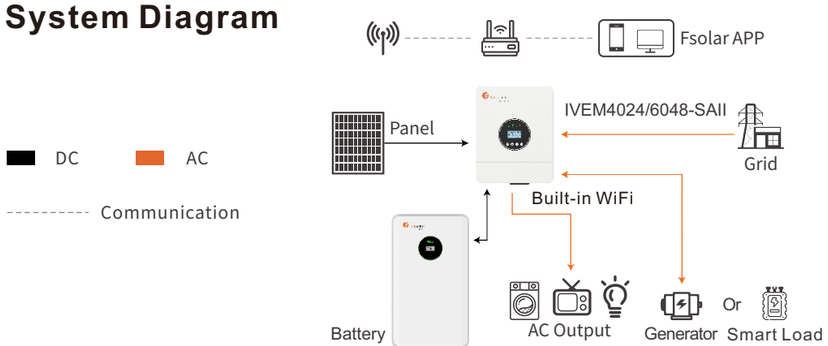


*** Spanish and portuguese versions available**

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.
- Runs on Solar or Grid, No Battery.
- Auto restart while AC is recovering.
- Cold start function.

System Diagram



Specifications

Model	IVEM4024-SAII	IVEM6048-SAII
Line Mode Specifications		
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
Grid Charging Mode Specifications		
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	
Solar & Utility Charging		
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
General Specifications		
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

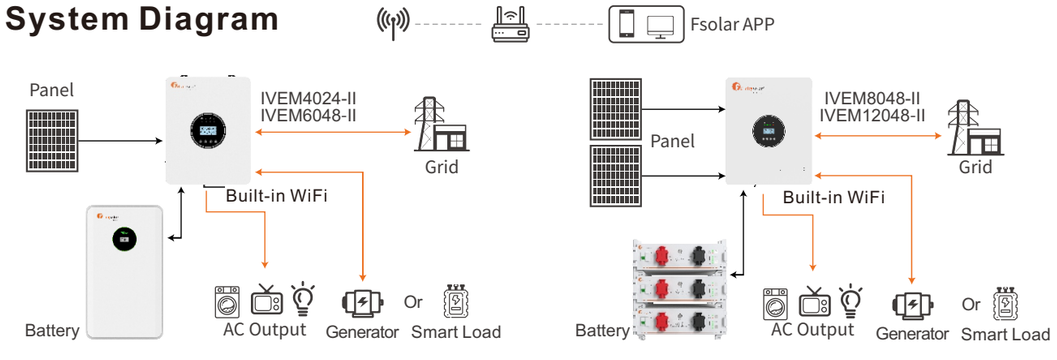
IVEM-II Series | IVEM4024/6048/8048/12048-II



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 (6kW) / 6 units (8kW & 12kW) in parallel (Battery must be connected).
- Supports generator input port reconfiguration to smart output port with customizable duration.
- Supports grid feed-in.
- Compatible with mains voltage or generator power.
- Built-in MPPT solar charge controller.
- Lithium battery activation function.
- Runs on Solar or Grid, No Battery.
- Auto restart while AC is recovering.
- Cold start function.

System Diagram



Specifications

Model	IVEM4024-II	IVEM6048-II	IVEM8048-II	IVEM12048-II
Line Mode Specifications				
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			
Utility Charging Mode Specifications /Generator Charging Mode Specinications				
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			
Solar Charging & Grid Charging or GEN Charging				
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
Inverter Mode Specifications				
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			
General Specifications				
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.

Eco Hybrid Inverter

IVAM Series | IVAM6048-12048P1G1

AC-230V



IVAM6048P1G1



IVAM8048P1G1

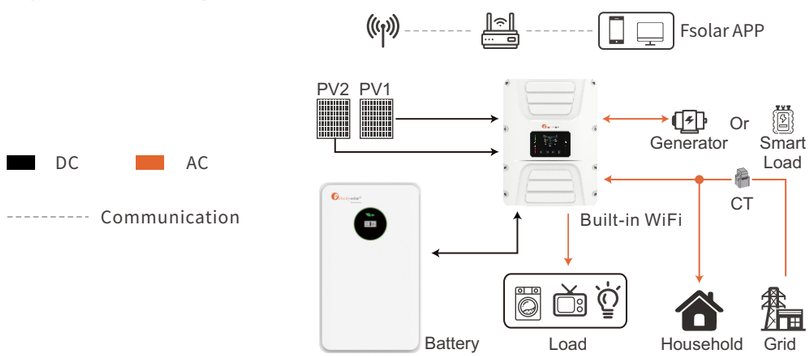


IVAM12048P1G1

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.
- 5-year Warranty
- 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.
- Clear Setup Wizard for Quick Installation.

System Diagram



Specifications

Model			
Battery Input Data	**IVAM6048P1G1**	**IVAM8048P1G1**	**IVAM12048P1G1**
Battery Type		Lead-acid or Lithium-ion	
Battery Voltage Range(V)		40~60	
Max. Charging Current/Max. Discharging Current(A)	135	190	250
Charging Strategy for Li-Ion Battery		Self-adaption to BMS	
Number of Battery Input		1	2
PV String Input Data			
Max. PV Access Power(W)	12000	16000	24000
Max. PV Input Power(W)	9600	12800	19200
Max. PV Input Voltage(V)		500	
Start-up Voltage(V)		90	
PV Input Voltage Range(V)		90~500	
MPPT Voltage Range(V)		90~425	
Full Load MPPT Voltage Range(V)	300~425	200~425	200~425
Rated PV Input Voltage(V)	370	370	370
Max. Operating PV Input Current(A)	20+20	27+27	32+32
Max. Input Short-Circuit Current(A)	27+27	40+40	48+48
No. of MPP Trackers/No. of Strings MPP Tracker	2/1+1	2/2+2	2/2+2
AC Output Data			
Rated AC Output Power(VA/W)	6000	8000	12000
Max. AC Output Power(VA/W)	6000	8000	12000
Max. AC Output Current(A)	26.1	34.8	52.2
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	
AC Input Data(Grid and Generator)			
Max. Input Power to Battery(W)	6000	8000	12000
Rated Input Voltage(V)		230	
Rated Input Frequency		50Hz/60Hz	
Grid Input Frequency Range(Hz)		40~65	
Transfer Time (Single unit)		10ms(UPS);20ms(APL)	
Grid Input Current(A)	35	50	60
Generator Input Current(A)	35	50	60
Equipment Protection			
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)	
General Data			
Display		LCD+LED	
Communication Interface		RS485, CAN	
Monitor Mode		WIFI/LAN (Optional)	
General Data			
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	14. 5kg	21.4kg
Product Dimension	435x320x183mm	456.5x362x183.2mm	594x385x203mm
Package Dimension	532x412x270mm	552x447x270mm	752x507x348mm
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.

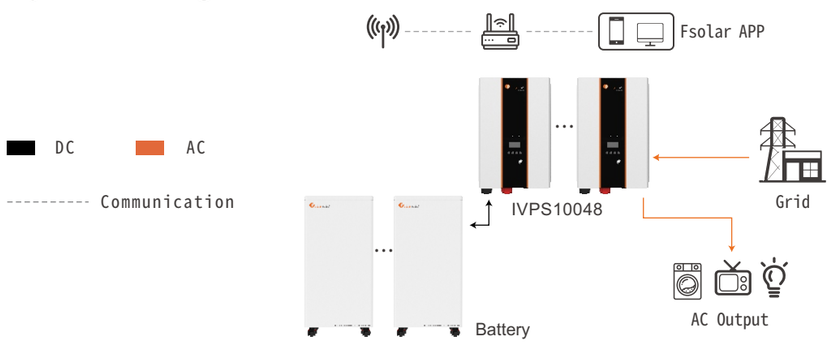
Off-grid Low-frequency Inverter

IVPS Series | IVPS1512~10048



- Comprehensive scientific management of electric charging and solar charging, will soon get rid of MPPT exchange.
- Bypass charging function.
- Selectable charging priority (grid/battery).
- 90-280V Wide range of AC input voltage.
- Upgraded safety protection design with industry-leading transformer over-temperature protection.
- Intelligently fine-tune the over-discharge voltage according to the load power.
- Supports up to 6 units in parallel for 10KVA (Battery must be connected).

System Diagram



Specifications

Model	IVPS1512	IVPS2512	IVPS3524	IVPS5048	IVPS7548	IVPS10048
Line Mode Specifications						
Rated Output Power(VA)	1500VA	2500VA	3500VA	5000VA	7500VA	10000VA
Rated Output Power(W)	1200W	2000W	2800W	4000W	6000W	8000W
Nominal DC Input Voltage	12V	12V	24V	48V	48V	48V
Input Voltage Waveform	Sinusoidal(Utility or Generator)					
Nominal Input Voltage	220Vac					
Max. AC Input Voltage	280Vrms					
Nominal Input Frequency	50Hz/60Hz					
Output Voltage Waveform	As Same as Input Waveform					
Over-Load Protection(SMPS load)	AC 10A	AC 30A		Air Switch Protection		
Output Short Circuit Protection	AC 10A	AC 30A		Air Switch Protection		
Efficiency(Line mode)	⩾95%(Rated R Load, and Battery is Fully Charged)					
Pass Through Without Battery	No					
Max. Bypass Overload Current	AC 10A	AC 30A		AC63A		
Utility Charge Mode Specifications						
Nominal Input Voltage	220Vac					
Input Voltage Range	90~280Vac					
Nominal Output Voltage	Dependent on Battery Type					
Max. Charge Current	18A	40A	40A	50A	60A	80A
Charge Current Regulation	0A-18A	0A-40A	0A-40A	0A-50A	0A-560A	0A-80A
Battery Lnitial Voltagen	Circuit Breaker					
Charger Short Circuit	AC 10A	AC 30A		AC 63A		
Breaker Size	Dependent on Battery Type or Self-defined					
Over Charge Protection	Yes					
Inverter Mode Specifications						
Output Voltage Waveform	Pure Sine Wave					
Nominal Output Voltage	220Vac±5%					
Nominal Output Frequency(Hz)	50±0.3Hz/60Hz±0.3Hz(Adjustable)					
Output Voltage Regulation	±5%rms					
Peak Efficiency	90%					
Capable of Starting Electric	Yes					
Output Short Circuit Protection	Yes					
Cold Start Voltage	11.5V/23V/46V					
General Specifications						
Operating Temperature	0°C~40°C					
Range Storage Temperature	-15°C~60°C					
Net Weight(KG)	9.3KG	20KG	26KG	29.1KG	37.1KG	55.8KG
Gross Weight(KG)	11.2KG	24.1KG	28.8KG	32.5KG	41.5KG	67.7KG
Product Size(MM)	328*238.4*145	440*244.5*194.5	440*244.5*194.5	493.5*375*195		583.5*420*195
Package Dimension(MM)	440*312*246	552*408*290	552*408*295	607*540*290		670*470*355

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

Off-grid Low-frequency Inverter

IVPS Series | IVPS7548/10048P2G1

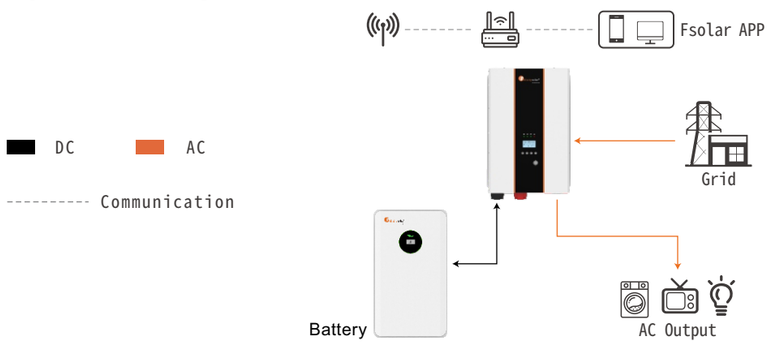
AC-220/240V



Features

- Bypass charging function.
- Selectable charging priority (grid/battery).
- Intelligently adjust the over-discharge voltage based on load power.
- Configurable overcharge voltage / float voltage / over-discharge voltage .
- Wide range of AC input voltage 90-280V.
- Multiple Protections: over-charge / over-discharge / overload / output short-circuit / over-temp.
- Upgraded safety protection design with industry-leading transformer over-temperature protection.

System Diagram



Specifications

Model	IVPS7548P2G1	IVPS10048P2G1
Line Mode Specifications		
Rated Output Power(VA)	7,500VA	10,000VA
Rated Output Power(W)	6,000W	8,000W
Nominal DC Input Voltage	48V	48V
Input Voltage Waveform	Sinusoidal(Utility or Generator)	
Teriminal Connection	HOT1-HOT2	
Nominal Input Voltage	220/240Vac	
Max. AC Input Voltage	280Vrms	
Nominal Input Frequency	50Hz / 60Hz	
Overcurrent Protector (grid)	63A	
Utility Charge Mode Specifications		
Input Voltage Range	90~280Vac	
Nominal Output Voltage	Dependent on Battery Type	
Max. Charge Current	60A	80A
Charge Current Regulation	0-60A	0-80A
Battery Initial Voltagen	Dependent on Battery Type or Self-defined	
Over Charge Protection	Yes	
Inverter Mode Specifications		
Output Voltage Waveform	Pure Sine Wave	
Nominal Output Voltage	220/240Vac±5%(HOT1-HOT2)	
Split-Phase Output Voltage	110/120Vac±5%(HOT1-N OR HOT2-N)	
Nominal Output Frequency(Hz)	50±0.3Hz/60Hz±0.3Hz(Adjustable)	
Output Voltage Regulation	±5%rms	
Peak Efficiency	90%	
Over-Load Protection (SMPS load)	5s @≥150% Load; 10s @ 105%-150% Load	
Surge rating	2 Times Rated Overload Power 5S	
Capable of Starting Electric	Yes	
Output Short Circuit Protection	Yes	
General Specifications		
Operating Temperature	0°C~40°C	
Range Storage Temperature	-15°C~60°C	
Net Weight(KG)	34.7KG	55.4KG
Gross Weight(KG)	38.2KG	67.7KG
Product Dimension(MM)	494*420*195MM	584*420*195MM
Package Dimension(MM)	607*540*290MM	670*470*355MM

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

Off-grid Low-frequency Solar Inverter

IVPM-PRO Series | IVPM10048/16048P1G2-PRO

AC-230V

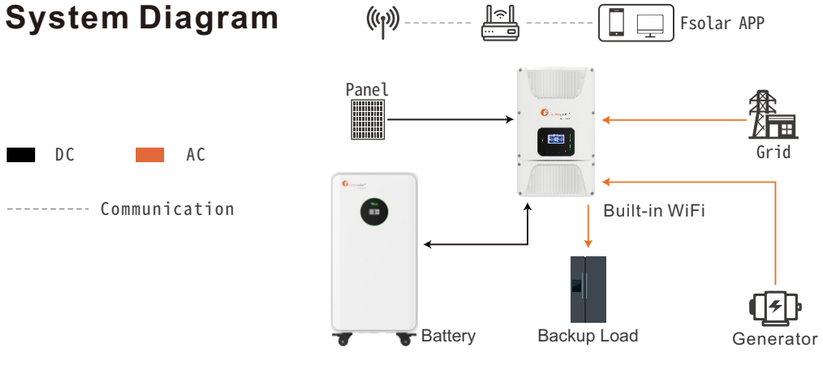


IVPM10048P1G2-PRO

IVPM16048P1G2-PRO

- Fit for Single-phase Three-phase System.
- Remote Monitoring via Fsolar APP.
- Gen / Grid / Smart Load Compatible.
- Optional Working Modes, Backup Power or Cost Saving.
- Error Code Display, Effortless Fault Identification.
- User-friendly Touchscreen.
- Built-in Isolated Solar Charge Controllers, Safer and Faster Charging.
- 16kW-192kW Scalable Power.
- UPS / APL Mode Selectable.
- Clear Setup Wizard for Quick Installation.

System Diagram



Model	IVPM10048P1G2-PRO	IVPM16048P1G2-PRO
Line Mode Specifications		
Rated Output Power	10,000VA	16,000VA
	8,000W	12,800W
Nominal DC Input Voltage	48V	
Input Voltage Waveform	Sinusoidal (Utility or Generator)	
Nominal Input Voltage	230Vac	
Nominal Input Frequency	50Hz / 60Hz	
Output Short Circuit Protection	Mains Mode: External air Switch Protection, Battery Mode: Electric Circuit	
Switching Time (Standalone)	8ms Typical (UPS) / 15ms Typical (APL)	
Switching Time (Parallel Operation)	20ms Typical	
Max Bypass Overload Current	AC 44A	AC 69A
Maximum Bypass Current/Power	53A / 12KVA	82.8A / 19.2KVA
Maximum Rectification Current/Power	44A / 10kW	69A / 16kW
Utility Charge Mode Specifications		
Nominal Input Voltage	230Vac	
Input Voltage Range	90~270Vac	
Nominal Output Voltage	Dependent on Battery Type	
Max Charge Current	150A	220A
Charge Current Regulation	0A~150A	0A~220A
Over Charge Protection	Yes	
Solar Charging & Utility Charging (MPPT built-in controller is optional)		
Max PV Open Circuit Voltage	525Vdc	
PV Aray MPPT Voltage Range	100-450Vdc	
MPPT Full-Load Voltage Range	320-450Vdc	
Startup Voltage	125V	
Max Input Power	8.9kW+8.9kW	17kW+8.5kW
Max Solar Charging Current	240A	350A
Maximum Charging Current (PV + Mains)	240A	350A
Maximum PV Operating Input Current	20A+20A	40A+20A
Maximum PV Short-Circuit Current	25A+25A	44A+22A
No. of MPP Trackers/Strings of per MPP Tracker	2/1+1	2/2+1
Inverter Mode Specifications		
Rated Output Power	10,000VA/8,000W	16,000VA/12,800W
Nominal DC Input Voltage	48V	
Peak Efficiency	93%	
Total Current Harmonic Distortion THDV	<3% (of Nominal Power)	
Over-Load Protection	10min @102%~110% Load	
Surge rating	2* Rated Power for 5 Seconds	
Output Short Circuit Protection	Yes	
Number of Parallel Units	12	
Dual Output	Yes	
Interface		
Display	LCD+LED	
Communication Interface	RS485 / CAN	
Monitor Mode	WIFI / Bluetooth	
General Specifications		
Operating temperature	-10°C ~ +55°C	
Storage temperature	-15°C~ +60°C	
IP rating	IP21	
Net Weight	70.7KG	95.5KG
Gross Weight	89.7KG	115KG
Bare Unit Dimensions	704x460x309mm	764x460x410mm
Package Dimensions	810x570x482mm	880x570x584mm

Off-grid Low-frequency Solar Inverter

IVPM-PRO Series | IVPM8048~12048P2G2-PRO

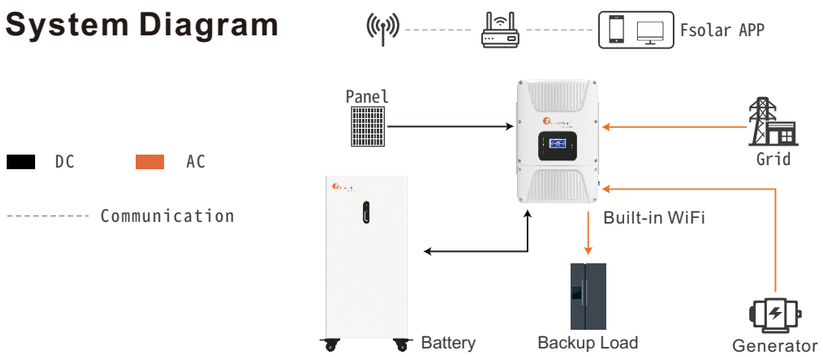
AC-120V/240V



Features

- Fit for Split-phase or Three-phase System.
- Remote Monitoring via Fsolar APP.
- Optional Working Modes, Backup Power or Cost Saving.
- Error Code Display, Effortless Fault Identification.
- User-friendly Touchscreen.
- Built-in Isolated Solar Charge Controllers, Safer and Faster Charging.
- UPS / APL Mode Selectable.
- Clear Setup Wizard for Quick Installation.

System Diagram



Model	IVPM8048P2G2-PRO	IVPM10048P2G2-PRO	IVPM12048P2G2-PRO
Line Mode Specifications			
Rated Output Power	8,000VA	10,000VA	12,000VA
	6,400W	8,000W	9,600W
Nominal DC Input Voltage	48V		
Input Voltage Waveform	Sinusoidal (Utility or Generator)		
Nominal Input Voltage	120(L1-N/L2-N)/240(L1-L2)Vac		
Nominal Input Frequency	50Hz / 60Hz		
Output Short Circuit Protection	Mains Mode: External air Switch Protection, Battery Mode: Electric Circuit		
Switching Time (Standalone)	8ms Typical (UPS) / 15ms Typical (APL)		
Switching Time (Parallel Operation)	20ms Typical		
Max Bypass Overload Current	AC 42A	AC 50A	AC 60A
Maximum Bypass Current/Power	33A / 8KVA	42A / 10KVA	50A / 12KVA
Maximum Rectification Current/Power	33A / 8KVA	42A / 10KVA	50A / 12KVA
Utility Charge Mode Specifications			
Nominal Input Voltage	120(L1-N/L2-N)/240(L1-L2)Vac		
Input Voltage Range	90~270Vac		
Nominal Output Voltage	L1-N/L2-N: 110V/115V/120Vac±5% , L1-L2: 220V/230V/240Vac±5%		
Max Charge Current	120A	150A	170A
Charge Current Regulation	0A~120A	0A~150A	0A~170A
Over Charge Protection	Yes		
Solar Charging & Utility Charging (MPPT built-in controller is optional)			
Max PV Open Circuit Voltage	525Vdc		
PV Aray MPPT Voltage Range	150-450Vdc		
MPPT Full-Load Voltage Range	150-450Vdc		
Startup Voltage	125V		
Max Input Power [1]	9.8kW	17kW+8.5kW	
Max Solar Charging Current	150A	350A	
Maximum Charging Current (PV + Mains)	150A	350A	
Maximum PV Operating Input Current	27A	40A+20A	
Maximum PV Short-Circuit Current	35A	44A+22A	
No. of MPP Trackers/Strings of per MPP Tracker	1/2	2/1+1	
Inverter Mode Specifications			
Rated Output Power	8,000VA/6,400W	10,000VA/8,000W	12,000VA/9,600W
Nominal DC Input Voltage	48V		
Peak Efficiency	91%	92%	93%
Total Current Harmonic Distortion THDV	<3% (of Nominal Power)		
Over-Load Protection	10min @102%~110% Load		
Surge rating	2* Rated Power for 5 Seconds		
Output Short Circuit Protection	Yes		
Number of Parallel Units	/		
Dual Output	Yes		
Interface			
Display	LCD+LED		
Communication Interface	RS485 / CAN		
Monitor Mode	WIFI / Bluetooth		
General Specifications			
Operating temperature	-10°C ~ +55°C		
Storage temperature	-15°C~ +60°C		
IP rating	IP21		
Net Weight	57.0KG	68.3KG	75.0KG
Gross Weight	76.0KG	87.3KG	94.0KG
Bare Unit Dimensions	704x460x309mm		
Package Dimensions	810x570x482mm		

[1] Maximum Input Power per String of per Tracker (450V * Maximum Average Current per Channel).

Low-voltage Hybrid Solar Inverter

IVGM Series | IVGM16KLP1G1

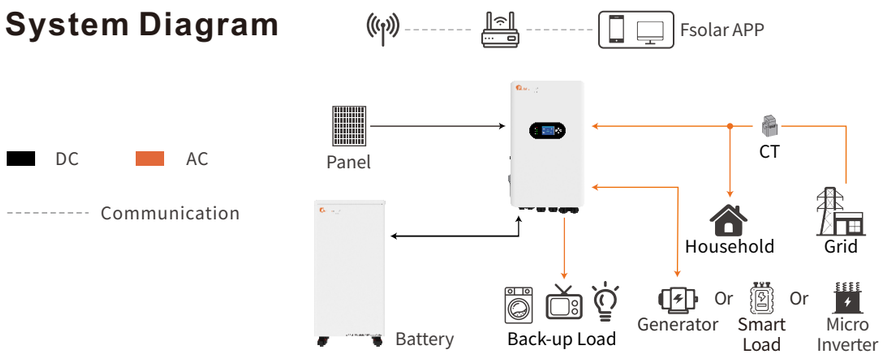
Single Phase



Features

- Configurable parameters and working mode by LCD touch screen.
- Supporting WiFi monitoring and Fsolar smart cloud monitoring system.
- Supports high current for battery charging/discharging.
- 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 multiple MPPTs for enhanced PV input capability.
- Programmable generator port, support smart load and micro inverter access.
- Max. 6 units in parallel.

System Diagram



Specifications

Model	IVGM16KLP1G1
Battery Input Data	
Battery Type	Lead-acid or Lithium-ion
Battery Voltage Range	40V~60V
Max. Charging and Discharging Current	290A/290A
Charging Strategy for Li-ion Battery	Self-adaption to BMS
Number of Battery Input	2
PV String Input Data	
Max. PV Access Power	32000W
Max. PV Input Power	25600W
Max. PV Input Voltage	500V
Start-up Voltage	125V
MPPT Voltage Range	150V-425V
Rated PV Input Voltage	370V
Max Input Short-Circuit Current	44A+44A+44A
Max Operating PV Input Current	26A+26A+26A
No.of MPP Trackers/No.of String Per MPP Tracker	3/2+2+2
Grid Data	
Rated AC Input/Output Active Power	16000W
Max. AC Input/Output Apparent Power	17600VA
Peak Power (off-grid)(W)	2 Times of Rated Power, 10s
Rated AC Input/Output Current	72.7A/69.6A
Max. AC Input/Output Current	80A/76.5A
Max. Continuous AC Passthrough (grid to load)	100A
Rated Input/Output Voltage/Range	220V/230V 0.85Un-1.1Un
Grid Connection Form	L+N+PE
Rated Input/Output Grid Frequency/Range	50Hz/45Hz-55Hz 60Hz/55Hz-65Hz
Power Factor Adjustment Range	0.8 Leading to 0.8 Lagging
Total Current Harmonic Distortion THDi	<3% (of Nominal Power)
DC Injection Current	<0.5% In
Protection	
DC Reverse Polarity Protection	Integrated
AC Output Overcurrent Protection	Integrated
Thermal Protection	Integrated
AC Output Overvoltage Protection	Integrated
AC Output Short Circuit Protection	Integrated
DC Component Monitoring	Integrated
Arc Fault Circuit Interrupter (optional)	Integrated
Anti-islanding Protection	Integrated
DC Switch	Integrated
Insulation Impedance Detection	Integrated
Residual Current Detection	Integrated
Surge Protection Level	(TYPE II(DC), TYPE II(AC))
Interface	
Communication Interface	RS485/RS232/CAN
Monitor Mode	WIFI/Bluetooth
General Data	
Operating Temperature Range	-25°C~60°C, >45°C Derating
Ingress Protection (IP) Rating	IP65
Inverter Topology	Non-Isolated
Over Voltage Category	OVC II(DC), OVC III(AC)
Net Weight	53 kg
Gross Weight	63,6 kg
Product Dimension	760*450*285 mm
Package Dimension	895*570*419 mm
Type Of Cooling	Intelligent air Cooling
Warranty	10 Years
Grid Regulation(In progress)	IEC61727, IEC62116, NRS097
Safety Regulation & EMC	IEC/EN61000-6-1/2/3/4, IEC/EN62109-1, IEC/EN62109-2

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

Low-voltage Hybrid Solar Inverter

IVGM Series | IVGM12KLP3G2

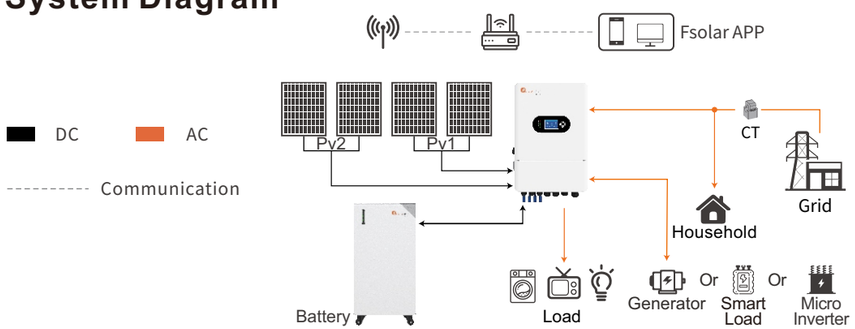
Three Phase



Features

- Supports WiFi monitoring and Fsolar 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.
- 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	IVGM12KLP3G2
Battery Input Data	
Battery Type	Li-Ion / Lead-acid
Battery Voltage Range	40V~60V
Max. Charging/Discharging Current	240A
PV String Input Data	
Max. PV Input Power	18kW
Max. PV Input Voltage	800V
Start-up Voltage	160V
MPPT Voltage Rang	200V-650V
Rated DC Input Voltage	550V
Full Load DC Voltage Range	350~650V
Max. Operating PV Input Current	26+26(A)
Max. Input Short-Circuit Current	39+39(A)
No. of MPP Trackers /No. of Strings MPP Tracker	2/2+2
AC Input/Output Data	
Rated AC Input/Output Active Power	12kW
Max. AC Input/Output Apparent Power	13.2kVA
Peak Power (Off-grid)	2 Times of Rated Power, 10s
Rated AC Input/Output Current	17.4A
Max. AC Input/Output Current	19.2A
Max. Continuous AC Passthrough (Grid to Load)	45A
Max. Output Overcurrent Protection	52A
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)
Equipment Protection	
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)
Certification and Standards	
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
General Data	
Net Weight(KG)	37.8KG
Gross Weight(KG)	47.4KG
Product Dimension(MM)	634x444.5x255.2MM
Package Dimension(MM)	771x526x398MM
Protection Degree	IP65
Communication with BMS	RS485/CAN
Monitor Module	WiFi/4G
Warranty	10 Years

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

Low-voltage Hybrid Solar Inverter

IVGM Series | IVGM20KLP3G1

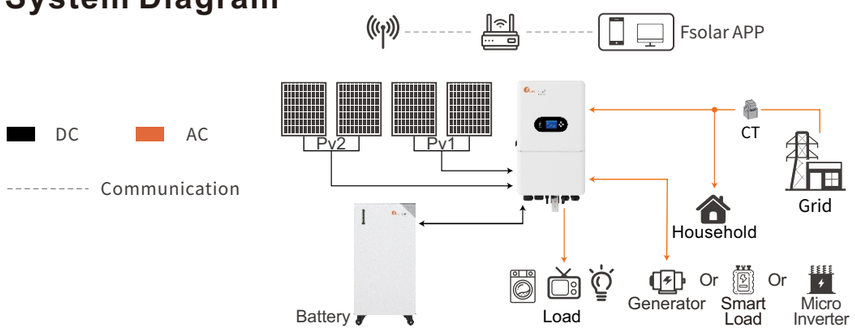
Three Phase



Features

- Supports WiFi monitoring and Fsolar 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
Battery Input Data	
Battery Type	Li-Ion / Lead-acid
Battery Voltage Range	40V~60V
Max. Charging/Discharging Current	350A
PV String Input Data	
Max. PV Input Power	32kW
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
Max. Operating PV Input Current	36+36(A)
Max. Input Short-Circuit Current	54+54(A)
No. of MPP Trackers /No. of Strings MPP Tracker	2/2+2
AC Input/Output Data	
Rated AC Input/Output Active Power	20kW
Max. AC Input/Output Apparent Power	22kVA
Peak Power (Off-grid)	2 Times of Rated Power, 10s
Rated AC Input/Output Current	28.9A
Max. AC Input/Output Current	31.9A
Max. Continuous AC Passthrough (Grid to Load)	70A
Max. Output Overcurrent Protection	92A
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)
Equipment Protection	
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)
Certification and Standards	
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
General Data	
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	10 Years

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

High-voltage Hybrid Solar Inverter

IVGM Series | IVGM25KHP3G3

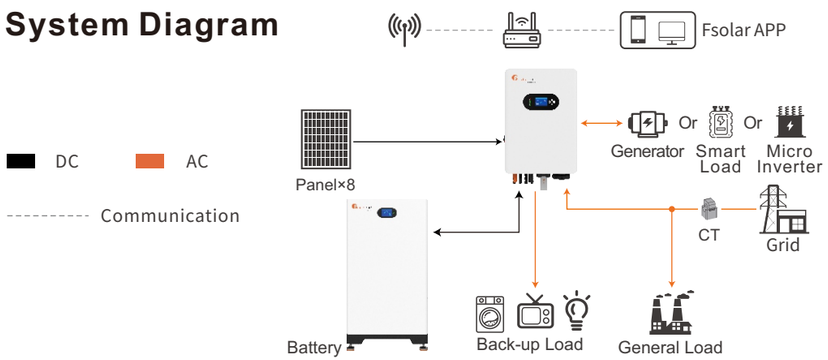
Three Phase



Features

- Configurable parameters and working mode by LCD touch screen.
- Supporting WiFi monitoring and Fsolar smart cloud monitoring system.
- Prevent grid overload with built-in limit function.
- 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. 1.6 times over configuration capacity.
- Programmable generator port, support smart load and micro inverter access.
- Max. 12 units in parallel.

System Diagram



Specifications

Model	IVGM25KHP3G3
Battery Input Data	
Battery Voltage Range	160~700Vdc
Max. Charging and Discharging Current	50A/50A
Max. Charging and Discharging Power	25kW
Battery Type	LFP(LiFePO4)
DC Input Data(PV side)	
Max. Recommended PV Power	50kW
Max. PV Voltage	1000V
Start Voltage	200V
MPPT Voltage Range	200V-850V
Nominal Voltage	600V
PV Input Current	30A+30A
Number of MPP Trackers / Strings Per MPP Tracker	2/2+2
Grid Data	
Nominal Input Voltage	220/380Vac, 230/400Vac (-20%~+15%)
Nominal Grid Frequency	50/60Hz (45~55Hz/55~65Hz)
Max. AC Output Power	27.5kVA
AC Output/Input Rated Current	36.3A
Max. Output Current	39.8A
Max. Continuous AC Passthrough	80 A
AC Output Data (Back Up)	
Rated Output Power	25kW
Max. Output Current	39.8A
Rated AC Output Voltage	220/380Vac, 230/400Vac (-20%~+15%)
Rated AC Output Frequency	50/60Hz (45~55Hz/55~65Hz)
Protection	
DC Polarity Reverse Connection Protection	Integrated
AC Output Overcurrent Protection	Integrated
AC Output Overvoltage Protection	Integrated
AC Output Short Circuit Protection	Integrated
Thermal Protection	Integrated
DC Terminal Insulation Impedance Monitoring	Integrated
DC Component Monitoring	Integrated
Ground Fault Current Monitoring	Integrated
Arc fault circuit interrupter (AFCI)	Integrated
Power Network Monitoring	Integrated
Island Protection Monitoring	Integrated
Earth Fault Detection	Integrated
DC input Switch	Integrated
Overvoltage Load Drop Protection	Integrated
Residual Current (RCD) Detection	Integrated
Surge Protection Level (TYPE II(DC), TYPE II(AC))	Integrated
General Data	
Operating Temperature Range	-40 to +60°C, >45°C Leistungsminderung
Protection Degree	IP65
Cooling Concept	Smart Cooling
Communication with BMS	CAN / RS485
Monitor Module	WiFi / 4G
Display	LCD + LED
Installation Style	Wall-mounted
Warranty	10 Years
Grid Regulation	NRS 097-2-1, VDE 4105, EN 50549-1, AS 4777.2, GB/T 34120,GB/T 34133,GB/T 34129
Safety Regulation & EMC	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2
Net Weight	39.4 kg
Gross Weight	48.6 kg
Product Dimension	642x445x237.5 mm
Package Dimension	789x568x367 mm

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

High-voltage Hybrid Solar Inverter

IVGM Series | IVGM25~50KHP3G2

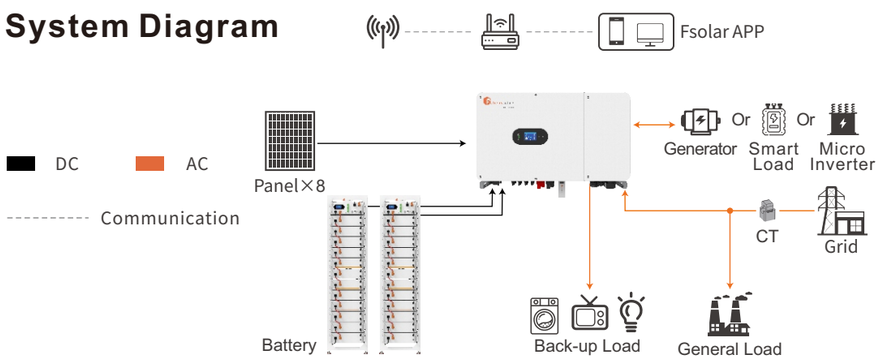
Three Phase



Features

- AI-powered forecasting, smart planning & personalized energy optimization.
- Supports WiFi monitoring and 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.
- 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	IVGM29K9HP3G2	IVGM30KHP3G2	IVGM40KHP3G2	IVGM50KHP3G2
Battery Input Data				
Battery Type	LFP (LiFePO4)			
Battery Voltage Range	160~800Vd.c.			
Max. Charging Current	50+50(A)			
Max. Discharging Current	50+50(A)			
Number of Battery Input	2			
PV String Input Data				
Max. DC Access Power	59.8kW	60kW	80kW	100kW
Max. DC Input Power	47.84kW	48kW	64kW	80kW
Max. DC Input Voltage	1000Vd.c.			
Min. DC Input Voltage	150Vd.c.			
Start-up Voltage	180Vd.c.			
Rated DC Input Voltage	600Vd.c.			
MPPT Range	150~850Vd.c.			
Full Load DC Voltage Range	443~850Vd.c.	444~850Vd.c.	444~850Vd.c.	550~850Vd.c.
PV Input Current	36+36+36(A)		36+36+36+36(A)	
Max. PV Isc	55+55+55(A)		55+55+55+55(A)	
No.of MPP Trackers	3		4	
No.of Strings Per MPP Tracker	2		2	
AC Output Data				
Rated AC Output Power	29.9kW	30kW	40kW	50kW
Max. AC Output Power	29.9kW	33kW	44kW	55kW
AC Output Rated Current	43.4A	43.5A	58A	72.5A
Max. AC Current	43.4A	47.9A	63.8A	79.7A
Max. Output Overcurrent Protection (A)	144(A)		192 (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)			
Safety and Standards				
Surge Protection Level	TYPE II(DC), TYPE II(AC)			
Over Voltage Category	OVCII (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			
Protection				
PV Input Lightning Protection	Integrated			
PV String Input Reverse 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			
General Data				
Net Weight	80KG		87.1KG	
Gross Weight	101KG		107.1KG	
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 | IVGM125KHP3G1

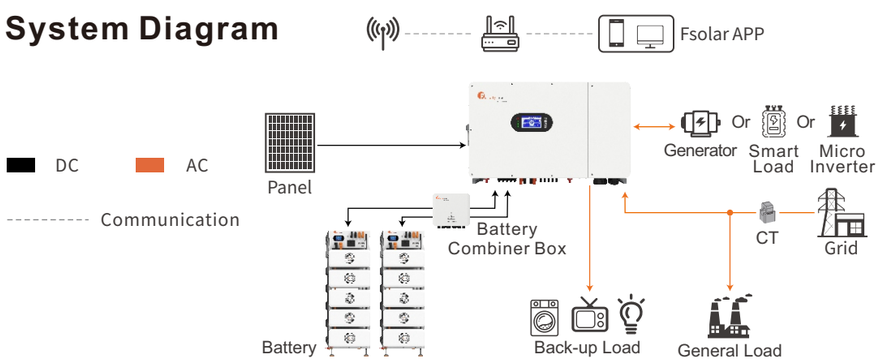
Three Phase



Features

- 0ms grid-to-off-grid transfer.
- Supports single-phase input, three-phase output.
- Active PID recovery function for long-term energy yield.
- Remote monitoring via Fsolar APP.
- Max. 12 units in parallel.
- 2× PV input oversizing.
- Dual independent batteries for stable high-power operation.
- Wide grid standard compatibility.
- IP66-rated protection.
- Generator / smart load / microinverter compatible.

System Diagram



Specifications

Model	IVGM125KHP3G1
Battery Input Data	
Battery Type	LFP (LiFePO4)
Battery Voltage Range	160~950Vd.c.
Max. Charging / Discharging Current	120+120(A)
Number of Battery Input	2
PV String Input Data	
Max. DC Input Power	250kW
Max. DC Input Voltage	1000Vd.c.
Start-up Voltage	180Vd.c.
Rated DC Input Voltage	600Vd.c.
MPPT Range	150~950Vd.c.
Full Load DC Voltage Range	555~950Vd.c.
PV Input Current	10x45(A)
Max. PV Isc	10x68(A)
No.of MPP Trackers	10
No.of Strings Per MPP Tracker	2
AC Input/Output Data	
Rated AC Input/Output Power	125kW
Max. AC Input/Output Power	137kVA
Max. AC Input/Output Current	198.6A
Max. Output Overcurrent Protection (A)	270 A
Max. AC Bypass (grid to load)	270 A
Single Phase Peak Power (off-grid)	1.5 times of rated power, 10s
Rated AC Voltage	220/380,230/400 Vac (-20%~+15%)
AC Wiring Mode	3L+N+PE
Rated AC Frequency	50 /60 Hz (45~55 Hz/55~65 Hz)
Safety and Standards	
Surge Protection Level	TYPE II(DC), TYPE III(AC)
Over Voltage Category	OVC II(DC), OVC III(AC)
Grid Regulation	IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, OVE-Richtlinie R25, G99, VDE-AR-N 4110
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2
Protection	
PV Input Lightning Protection	Integrated
PV String Input Reverse Polarity Protection	Integrated
Battery Input Lightning Protection	Integrated
Battery Input Reverse Polarity Protection	Integrated
DC Component Detection	Integrated
Insulation Resistor Detection	Integrated
Residual Current Monitoring Unit	Integrated
Arc Fault Monitoring (optional)	Integrated
Output Over Current Protection	Integrated
Output Shorted Protection	Integrated
Output Over Voltage Protection	Integrated
Remaining Current (RCD) Monitoring	Integrated
Overheat Protection	Integrated
Anti-islanding Protection	Integrated
AC Output Lightning Protection	Integrated
General Data	
Protection Degree	IP66
Operating Temperature Range	-40 to 60 °C (> 45 °C derating)
Humidity	0~100 % (No condensation)
Cooling	Smart cooling
Altitude	4000 m
Inverter Topology	Non-isolated
Parallel Compatible	Up to 12 in parallel
LCD/LED Display	LCD+LED
Communication With BMS	RS485/CAN
Monitor Module	WIFI/Bluetooth/4G/LAN(optional)
Installation Style	Wall-mounted
Warranty	10 Years
Net Weight / Gross Weight (KG)	155.5KG / 198KG
Product Dimension(MM)	1271*810*364MM
Package Dimension(MM)	1410*960*646MM

*Product specifications may vary during continuous improvements. Please contact us for latest details.
*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
Certifcatlon	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 | FLA12100~300PG2

Low-voltage



Features

- Build-in WiFi / Bluetooth for real-time monitoring.
- Multiple protection with built-in smart BMS and fuse.
- LiFePO4: higher safe performance and longer cycle life.
- Max.16 units in parallel.
- Compatible with leading inverter brands.

Scenarios



Houses



Off-grid Cabins



Small Stores



Small Offices



Small Farms

Specifications

Model	FLA12100PG2	FLA12200PG2	FLA12300PG2
Battery Type	LiFePO4		
Energy	1.28kWh	2.56kWh	3.75kWh
Nominal Voltage	12.8V	12.8V	12.8V
Operating Voltage	11.2-14.4V	11.2-14.4V	11.2-14.4V
Max.Continuous Charge/Discharge Current[1]	100A	120A	150A
Peak Charge/Discharge Current(15s)	150A	200A	200A
Max.Charge/Discharge Power	1,250W	1,500W	1,875W
Depth of Discharge(DOD)	⩾ 95%	⩾ 95%	⩾ 95%
Scalability	Up to 16 units in parallel(20.48kWh)	Up to 16 units in parallel(40.96kWh)	Up to 16 units in parallel(60kWh)
Max. Series Connections	4 Units		
Communication	CAN2.0/RS485/WIFI/Bluetooth		
Protection Level	IP21		
Cycle Life[2]	⩾ 6,000 Cycles		
Charging Temperature Range	0-55 °C		
Discharging Temperature Range	-20-55 °C		
Display	LED		
Installation	Floor-Mounted		
Protection	Built-in smart BMS, Fuse		
Warranty	5 Years		
Net Weight	10.3kg	15.5kg	26kg
Gross Weight	12.3kg	18.5kg	29kg
Product Dimension	295×201×199MM	329×248×199MM	379×241×286MM
Package Dimension	357×263×261MM	391×310×257MM	438×300×344MM

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

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

LiFePO4 Battery

FLA Series | FLA24100~24500



(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 7-year long warranty.

Scenarios



Houses



Off-grid Cabins



Small Stores



Small Offices



Small Farms

Specifications

Model	FLA24100	FLA24200	FLA24250	FLA24300	FLA24500
Battery Type	LiFePO4				
Nominal Energy	2.56kWh	5kWh	6.4kWh	7.5kWh	12.5kWh
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
Recommend Charge/Discharge Current[1]	⩽100A	⩽120A	⩽150A	⩽150A	⩽200A
Recommend Charge/Discharge Power[1]	⩽2,500W	⩽3,000W	⩽3,750W	⩽3,750W	⩽5,000W
Maximum Charge/Discharge Current(15s)	150A	150A	200A	200A	300A
Maximum Charge/Discharge Power(15s)	3,750W	3,750W	5,000W	5,000W	7,500W
Scalability	Max. 15 pcs in Parallel(38.4kWh)	Max. 15 pcs in Parallel(75kWh)	Max. 15 pcs in Parallel(96kWh)	Max. 15 pcs in Parallel(112.5kWh)	Max. 15 pcs in Parallel(187.5kWh)
Depth of Discharge(DOD)	⩾95%				
Communication	CAN2.0/RS485/WIFI/Bluetooth				
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	LCD+LED				
Installation	Wall-Mounted / Floor-Mounted				
Protection	Built-in Smart BMS, Breaker, Fuse				
Warranty Period	7 Years				
Certification	UN38.3	UN38.3	UN38.3	UN38.3、CE-EMC、IEC 62619	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.

[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



Real-time status via LCD Display



Built-in WiFi/Bluetooth for Remote Monitoring



Support Wall Mounted Installation



Wide Inverter Compatibility

LiFePO4 Battery

FLA Series | FLA24100PG2



Features

- Easy fuse replacement design.
- Multiple protection with built-in smart BMS and fuse.
- LiFePO4: higher safe performance and longer cycle life.
- Scalable expansion up to 16 pcs in parallel.
- Compatible with leading inverter brands.

Specifications

Model	FLA24100PG2
Battery Type	LiFePO4
Nominal Energy	2.56kWh
Nominal Voltage	25.6V
Operating Voltage	22.4-28.8V
Recommend Charge/Discharge Current[1]	⩽100A
Recommend Charge/Discharge Power[1]	⩽2,500W
Maximum Charge/Discharge Current(15s)	150A
Maximum Charge/Discharge Power(15s)	3,750W
Scalability	Max. 16 pcs in Parallel(40.96kWh)
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	LCD+LED
Installation	Floor-Mounted
Protection	Built-in Smart BMS, Fuse
Warranty Period	5 Years
Certification	UN38.3
Product Weight	19.5KG
Package Weight	22KG
Product Dimension	350X306X185MM
Package Dimension	375X328X278MM

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

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

Scenarios


Houses


Off-grid Cabins


Small Stores


Small Offices


Small Farms

Product Display



Longer Lasting LiFePO4 Battery



Support 16 Pcs in Parallel



Wide Inverter Compatibility


External Battery Fuse Design

LiFePO4 Battery

FLA Series | FLA24100~400WG2

Low-voltage



Features

- Build-in WiFi / Bluetooth for real-time monitoring.
- Flexible installation: wall-mounted / floor-mounted.
- LiFePO4: higher safe performance and longer cycle life.
- Max.15 units in parallel.
- Compatible with leading inverter brands.

Specifications

Model	FLA24100WG2	FLA24200WG2	FLA24250WG2	FLA24300WG2	FLA24400WG2
Battery Type	LiFePO4				
Nominal Energy	2.56kWh	5kWh	6.4kWh	7.5kWh	10kWh
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	150A	175A	175A	200/ 250A
Peak Charge/Discharge Current(15s)	200A	200A	300A	300A	300A @ 2mins
Max. Charge/Discharge Power	2,500W	3,840W	4,480W	4,480W	5100/6400w
Scalability	Max. 15 pcs in Parallel(38.4kWh)	Max. 15 pcs in Parallel(75kWh)	Max. 15 pcs in Parallel(96kWh)	Max. 15 pcs in Parallel(112.5kWh)	Up to 15 units in parallel
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, Fuse				
Warranty Period	7 Years				
Certification	UN38.3				CAN2.0, Rs485, WIFI,Bluetooth
Product Weight	23KG	37KG	49.5KG	60KG	83.5KG±3%
Package Weight	27KG	42KG	54.5KG	64KG	101KG±3%
Product Dimension	325X400X180MM	445X433X194MM	400X402X275MM	400X475X269MM	589X450X289MM
Package Dimension	462X417X252MM	555X547X262MM	512X472X333MM	512X547X343MM	705X570X464MM

[1] Max. Continuous Charge/Discharge Current is Affected by Temperature and SOC.
[2]The current is affected by temperature and SOC.
[3]Condition apply,refer to Felicitysolar Warranty Letter.
[4]25°C±2°C/77°F ±3.6°F,70%EOL

*Product specifications may vary during continuous improvements. Please contact us for latest details.
*Refer to Felicitysolar's Warranty Policy for applicable conditions.

Scenarios


Houses


Off-grid Cabins


Small Stores


Small Offices


Small Farms

Product Display



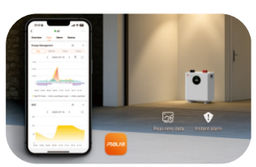
Longer Lasting LiFePO4 Battery



Floor-mounted/ Wall-mounted Installations

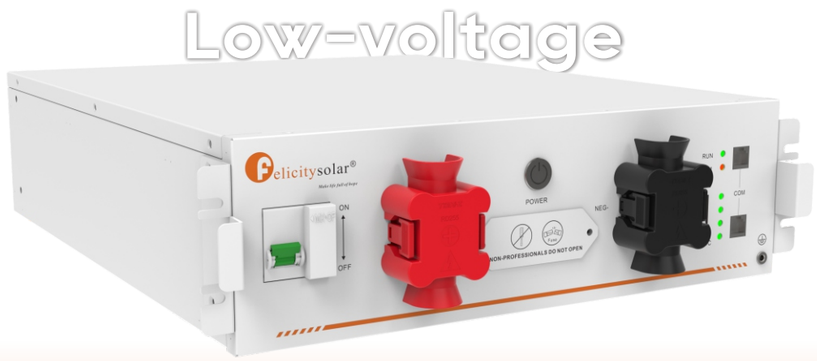


Max.15 Pcs in Parallel


Real-time Monitoring

LiFePO4 Battery

FLA Series | FLA48100UG1



Specifications

Model	FLA48100UG1
Battery Type	LiFePO4
Nominal Energy	5.12kWh
Nominal Voltage	51.2V
Operating Voltage	44.8-57.6V
Recommend Charge/Discharge Current	50A
Max. Continuous Charge/Discharge Current[1]	100A
Peak Charge/Discharge Current(15s)	125A
Max. Charge/Discharge Power	5,000W
Peak Charge/Discharge Power(15s)	6,250W
Depth of Discharge(DOD)	⩾95%
Scalability	Max. 32 pcs in Parallel(163.84kWh)
Communication	CAN2.0/RS485
Protection Level	IP21
Cycle Life	⩾ 6,000 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	LED
Installation	Stacked Installation/Rack Installation/Wall-mounted Installation
Protection	Built-in Smart BMS, Breaker, Fuse
Warranty	10 Years
Net Weight	43KG
Gross Weight	47KG
Product Dimension	575X483X133MM
Package Dimension	642X542X241MM

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

*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.

Features

- LiFePO4: higher safe performance and longer cycle life.
- Multiple installation choices: stack-mounted / wall-mounted / rack-mounted.
- Equipped with over-voltage trip protection & fire protection module.
- Max. 32 units in parallel.
- Max. 1C charge and discharge rate.
- Easy fuse replacement design.
- CCS Technology for better system performance.

Scenarios


Houses


Off-grid Cabins


Small Stores


Small Offices


Small Farms

Product Display


Max. 32 units in parallel



Guaranteed safety, peace of mind

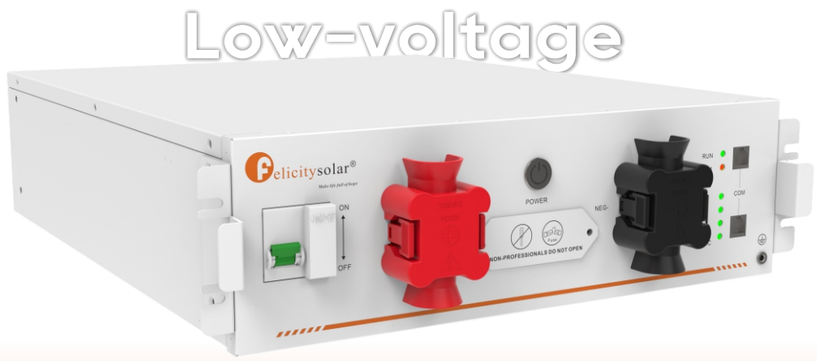


Max. 1C charge and discharge rate


Multiple installation choices, easy and convenient

LiFePO4 Battery

FLA Series | FLA48100UG2



Features

- LiFePO4: higher safe performance and longer cycle life.
- Multiple installation choices: stack-mounted / wall-mounted / rack-mounted.
- Equipped with over-voltage trip protection & fire protection module.
- Build-in WiFi / Bluetooth for real-time monitoring.
- Max. 32 units in parallel.
- Max. 1C charge and discharge rate.
- Easy fuse replacement design.
- CCS Technology for better system performance.

Scenarios


Houses


Off-grid Cabins


Small Stores


Small Offices


Small Farms

Specifications

Model	FLA48100UG2
Battery Type	LiFePO4
Nominal Energy	5.12kWh
Nominal Voltage	51.2V
Operating Voltage	44.8-57.6V
Recommend Charge/Discharge Current	50A
Max. Continuous Charge/Discharge Current[1]	100A
Peak Charge/Discharge Current(15s)	150A, 2min, 25°C
Max. Charge/Discharge Power	5,000W
Peak Charge/Discharge Power(15s)	6,250W
Depth of Discharge(DOD)	⩾95%
Scalability	Max. 32 pcs in Parallel(163.84kWh)
Communication	CAN2.0/RS485/WIFI/Bluetooth
Protection Level	IP21
Cycle Life	⩾ 6,000 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	LED
Installation	Stacked Installation/Rack Installation/Wall-mounted Installation
Protection	Built-in Smart BMS, Breaker, Fuse
Warranty	10 Years
Certification	IEC 62619, EN IEC 61000-6-1/2/3/4
Net Weight	43.3KG±3%
Gross Weight	49.2KG±3%
Product Dimension	575X483X133MM
Package Dimension	642X542X241MM

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

*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


Max. 32 units in parallel



Guaranteed safety, peace of mind



Max. 1C charge and discharge rate


Multiple installation choices, easy and convenient

LiFePO4 Battery

FLA Series | FLA48100~48250



(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 7-year long warranty.

Specifications

Model	FLA48100	FLA48200	FLA48250
Battery Type	LiFePO4		
Nominal Energy	5.12kWh	10kWh	12.5kWh
Nominal Voltage	51.2V	51.2V	51.2V
Operating Voltage	44.8-57.6V	44.8-57.6V	44.8-57.6V
Recommend Charge/Discharge Current[1]	⩽100A	⩽120A	⩽150A
Recommend Charge/Discharge Power[1]	⩽5,000W	⩽6,000W	⩽7,500W
Maximum Charge/Discharge Current(15s)	150A	150A	200A
Maximum Charge/Discharge Power(15s)	7,500W	7,500W	10,000W
Scalability	Max. 15 pcs in Parallel(76.8kWh)	Max. 15 pcs in Parallel(150kWh)	Max. 15 pcs in Parallel(187kWh)
Depth of Discharge(DOD)	⩾95%		
Communication	CAN2.0/RS485/WIFI/Bluetooth		
Protection Degree	IP21		
Cycle Life	⩾ 6000 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	Wall-Mounted / Floor-Mounted		
Protection	Built-in smart BMS, Breaker, Fuse		
Warranty Period	7 Years		
Certification	UN38.3、CE-EMC、IEC 62619	UN38.3、CE-EMC、IEC 62619、CB	UN38.3、CE-EMC、IEC 62619
Product Weight	48KG	68KG	97KG
Package Weight	55KG	88KG	115KG
Product Dimension	663X400X178MM	735X433X188MM	783X450X274MM
Package Dimension	782X522X262MM	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.

Scenarios



Houses



Off-grid Cabins



Small Stores



Small Offices



Small Farms

Product Display



Built-in WiFi/Bluetooth for Remote Monitoring



Aerosol Fire Extinguishing System



Support Wall Mounted Installation



Wide Inverter Compatibility

LiFePO4 Battery

FLA Series | FLA48300

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

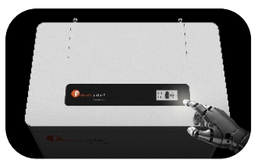
Specifications

Model	FLA48300
Battery Type	LiFePO4
Nominal Energy	15kWh
Nominal Capacity	300Ah
Nominal Voltage	51.2V
Operating Voltage	44.8-57.6V
Recommend Charge/Discharge Current	120A
Max. Continuous Charge/Discharge Current[1]	150A
Peak Charge/Discharge Current(15s)	200A
Scalability	Max. 15 pcs in Parallel(225kWh)
Depth of Discharge(DOD)	⩾95%
Display Type	LCD
Protection Degree	IP21
Working Temperature Range	Charge: 0°C~55 °C
	Discharge: -20°C~55 °C
Storge Temperature Range	0°C~+35°C
Humidity	5%~95%
Altitude	⩽ 2000m
Communication	CAN2.0/RS485/WIFI/Bluetooth
Cycle Life	⩾ 6000 Cycles (25°C±2°C,0.5C/0.5C,90%DOD,70%EOL)
Installation	Floor-Mounted
Protection	Built-in Smart BMS, Breaker, Fuse
Warranty Period	7 Years
Certification	UN38.3、CE-EMC、IEC 62619
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 | FLA48300TG2



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.

Specifications

Model	FLA48300TG2
Battery Type	LiFePO4
Nominal Energy	15kWh
Nominal Voltage	51.2V
Operating Voltage	44.8-57.6V
Recommend Charge/Discharge Current	80A
Max. Continuous Charge/Discharge Current[1]	160A
Peak Charge/Discharge Current(15s)	230A
Max. Charge/Discharge Power	8,000W
Peak Charge/Discharge Power(15s)	11,500W
Scalability	Max. 15 pcs in Parallel(225kWh)
Depth of Discharge(DOD)	⩾95%
Communication	CAN2.0/RS485/WIFI/Bluetooth
Protection Degree	IP21
Cycle Life	⩾ 6000 Cycles (25℃±2℃,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	7 Years
Product Weight	118.5KG
Package Weight	140.5KG
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.

Scenarios


Houses


Off-grid Cabins


Small Stores


Small Offices


Small Farms

Product Display



Built-in WiFi / Bluetooth for Remote Monitoring


Aerosol Fire Extinguishing System


External Battery Fuse Design



Support 15 Pcs in Parallel

Low-Voltage Battery

FLA Series | FLA48400TG2

High-Capacity



Features

- 13 kW Maximum output power
- 20.48kWh in One Pack
- Smart BMS, circuit and fuse protection, plus aerosol fire suppression
- 7-Year Warranty
- Up to 200A charging and 250A discharging support higher system power demands
- Expand up to 15 units in parallel, with Wi-Fi and Bluetooth monitoring
- 8000 Life Cycles

Specifications

Model	FLA48400TG2
Nominal Energy	20kWh
Battery Type	LiFePO4
Nominal Voltage	51.2V
Operating Voltage	44.8-57.6V
Recommend Charge/Discharge Current	Charge 100A Discharge 125A
Max. Charge/Discharge Current[1]	Charge 200A Discharge 250A
Peak Charge/Discharge Current	300A @ 2mins
Max. Charge/Discharge Power	Charge 10.2kW Discharge 12.8kW
Depth of Discharge(DOD)	95%
Scalability	Up to 15 units in parallel
Communication	CAN2.0, RS485,WIFI,Bluetooth
Protection Level	IP21
Cycle Life	⩾8000@ 25°C
Operatng Temperature	Charge 0-55°C Discharge -20-55°C
Storage Temperature	0~35°C
Display	LCD+LED
Installation	Floor-Mounted
Protection	BMS, Fuse, Breaker, MX+OF
Warranty[2]	7 Years
Energy Throughput[2]	44.5 MWh [3]
Net Weight	150.5kg±3%
Gross Weight	179kg±3%
Product Dimension	960x450x265mm
Package Dimension	1040x570x481mm

[1] The current is affected by temperature and SOC.
[2] Condition apply,refer to Felicitysolar Warranty Letter.
[3] 25°C±2°C/77°F ±3.6°F, 70%EOL.
*In the absence of communication, please follow the recommended settings in the table below.

Setting	FLA48400TG2
Max. Charging Voltage	57.6V
Floating Charging Voltage	57.6V
Max. Charging Current	200A*N
Cut-off Voltage	44.8V

Notes: *N* means the number of battery packs connected in parallel.

Scenarios



Houses



Off-grid Cabins



Small Stores



Small Offices



Small Farms

Product Display



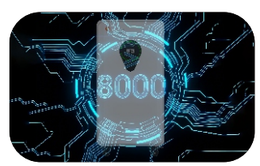
Built-in WiFi / Bluetooth for Remote Monitoring



Aerosol Fire Extinguishing System



External Battery Fuse Design



⩾8000 High Cycle Life

LiFePO4 Battery

FLA Series | FLA48350/500TG2

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.

Specifications

Model	FLA48350TG2	FLA48500TG2
Battery Type	LiFePO4	
Nominal Energy	17.5kWh	25kWh
Nominal Voltage	51.2V	
Operating Voltage	44.8-57.6V	
Max. Continuous Charge/Discharge Current[1]	175A	250A
Peak Charge/Discharge Current(15s)	300A	500A
Max. Charge/Discharge Power	8,750W	12,500W
Scalability	Max. 15 pcs in Parallel(262.5kWh)	Max. 15 pcs in Parallel(375kWh)
Depth of Discharge(DOD)	⩾95%	
Communication	CAN2.0/RS485/WIFI/Bluetooth	
Protection Degree	IP21	
Cycle Life	⩾ 8000 Cycles (25℃±2℃,0.5C/0.5C,90%DOD,70%EOL)	⩾ 6000 Cycles (25℃±2℃,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	7 Years	
Certification	UN38.3	
Product Weight	121.5KG	186.5KG
Package Weight	143.5KG	219.5KG
Product Dimension	435X880X247MM	570X250X980MM
Package Dimension	960X555X450MM	1135X690X465MM

[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.

Scenarios



Houses



Off-grid Cabins



Small Stores



Small Offices



Small Farms

Product Display



Built-in WiFi / Bluetooth for Remote Monitoring



Aerosol Fire Extinguishing System



Support 15 Pcs in Parallel



Wide Inverter Compatibility

LiFePO4 Battery

FLA Series | FLA48500

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 7-year long warranty.

Specifications

Model	FLA48500
Battery Type	LiFePO4
Nominal Energy	25kWh
Nominal Voltage	51.2V
Operating Voltage	44.8-57.6V
Recommend Charge/Discharge Current[1]	⩽200A
Recommend Charge/Discharge Power[1]	⩽10000W
Maximum Charge/Discharge Current(15s)	300A
Maximum Charge/Discharge Power(15s)	15000W
Depth of Discharge(DOD)	⩾95%
Scalability	Max.15 pcs in Parallel(375kWh)
Communication	RS485/CAN
Protection Degree	IP21
Cycle Life[2]	⩾6,000 Cycles
Charging Temperature Range	0°C-55 °C
Discharging Temperature Range	-20°C-60 °C
Display	LCD+LED
Installation Style	Floor-Mounted
Protection	Built-in Smart BMS, Breaker, Fuse
Warranty	7 Years
Certification	UN38.3、CE-EMC、IEC 62619
Product Weight	218KG
Package Weight	248KG
Product Dimension	718X380X990MM
Package Dimension	825X498X1162MM

[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.

Scenarios



Houses



Off-grid Cabins



Small Stores



Small Offices



Small Farms

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	
Storge Temperature Range	0°C~+35°C	
Humidity	5%~95%	
Altitude	⩽ 2000M	
Communication	CAN2.0/RS485/WIFI/Bluetooth	
Cycle Life	⩾6,000 Cycles(25℃ +2℃,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

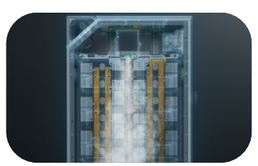
[1] Max. Continuous Charge/Discharge Current is Affected by Temperature and SOC.

*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 | 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 (FLB48230WG1-H~FLB48314TG1-H model).

Scenarios



Houses



Off-grid Cabins



Small Stores



Small Offices



Small Farms

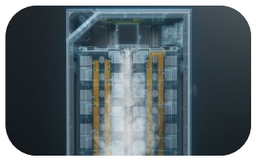
Specifications

Model	FLB48100WG1	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	110A
Max. Continuous Charge/Discharge Current[1]	100A	150A	160A
Peak Charge/Discharge Current(15s)	150A	200A	300A
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
Storge 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



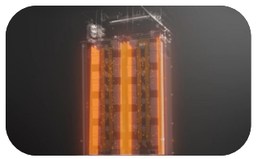
Aerosol Fire Extinguishing System



IP65 Protection Level



Scalable expansion up to 32 pcs in parallel



Optional Thermal Module (FLB48230WG1-H~ FLB48314TG1-H model)

LiFePO4 Battery

FLB Series | FLB48280TG1(-H)

Low-voltage



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.

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

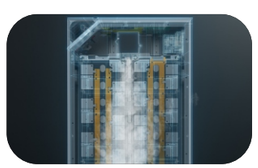


Small Offices



Small Farms

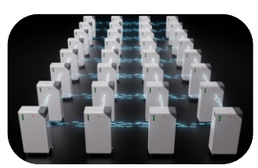
Product Display



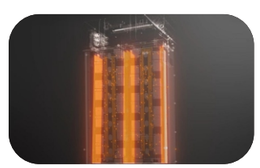
Aerosol Fire Extinguishing System



IP65 Protection Level



Scalable expansion up to 32 pcs in parallel



Optional Thermal Module (FLB48280TG1-H)

LiFePO4 Battery

FLS Series | 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							
Storge 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



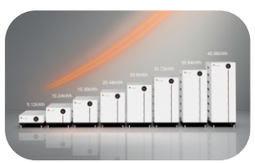
Multiple Protections



Real-time Monitoring



External Fuse Design



Max.8 Pcs in Parallel

LiFePO4 Battery

LPBA Series | LPBA12100/200WG1

Low-voltage



Specifications

Model	LPBA12100WG1	LPBA12200WG1
Battery Type	LiFePO4	
Nominal Energy	1.28kWh	2.56kWh
Nominal Voltage	12.8V	
Operating Voltage	11.2-14.4V	
Max. Charge/Discharge Current[1]	Charge 100A Discharge120A	Charge 150A Discharge150A
Peak Charge/Discharge Current	150A @ 15s	200A @ 15s
Max. Charge/Discharge Power	Charge 1300W Discharge 1500W	Charge 1900W Discharge 1900W
Depth of Discharge(DOD)	95%	
Scalability	Up to 16 units	
Series Connection	Up to 4 units per string	
Communication	CAN2.0/RS485/WIFI/Bluetooth	
Protection Level	IP21	
Cycle Life	⩾6000@ 25℃	
Operating Temperature	Charge 0~55℃ Discharge -20~55 ℃	
Display	LED	
Installation	Wall-Mounted, Floor-Mounted, Stack-Mounted	
Protection	BMS, Fuse	
Warranty[2]	5 Years	
Net Weight	14KG	22.7KG
Gross Weight	16KG	25.2KG
Product Dimension	295X263X162MM	295X288X237MM
Package Dimension	352X352X250MM	352X352X320MM

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

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

Features

- LiFePO4: Higher safe performance and longer cycle life.
- Build-in WiFi / Bluetooth for real-time monitoring.
- Max. 16 units in parallel.
- Compatible with leading inverter brands.
- Flexible Installation: Wall-mounted / floor-mounted / stack-mounted.

Scenarios



Houses



Off-grid Cabins



Small Stores



Small Offices



Small Farms

LiFePO4 Battery

LPBA Series | LPBA24100~24300WG1

Low-voltage



Specifications

Model	LPBA24100WG1	LPBA24200WG1	LPBA24300WG1
Battery Type	LiFePO4		
Nominal Energy	2.56kWh	5.12kWh	7.68kWh
Nominal Voltage	25.6V		
Operating Voltage	22.4-28.8V		
Max. Charge/Discharge Current[1]	Charge 100A Discharge 120A	Charge 180A Discharge180A	Charge 150A Discharge 200A
Peak Charge/Discharge Current	150A @ 15s	250A @ 15s	300A @ 15s
Max. Charge/Discharge Power	Charge 2600W Discharge 3100W	Charge 4600W Discharge 4600W	Charge 3800W Discharge 5100W
Depth of Discharge(DOD)	95%		
Scalability	Up to 32 units in parallel		
Communication	CAN2.0/RS485/WIFI/Bluetooth		
Protection Level	IP21		
Cycle Life	⩾6000@ 25°C		
Operating Temperature	Charge 0~55°C Discharge -20~55 °C		
Display	LED		
Installation	Wall-Mounted, Floor-Mounted		
Protection	BMS, Fuse		
Warranty[2]	7 Years		
Net Weight	27kg	45kg	61kg
Gross Weight	31kg	50kg	67kg
Product Dimension	390×350×188mm	410x390x266mm	390×480×259mm
Package Dimension	472×427×261mm	509x494x338mm	586×501×339mm

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

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

Features

- LiFePO4: Higher safe performance and longer cycle life.
- Build-in WiFi / Bluetooth for real-time monitoring.
- Max. 32 units in parallel.
- Compatible with leading inverter brands.
- Flexible Installation: Wall-mounted / floor-mounted.

Scenarios



Houses



Off-grid Cabins



Small Stores



Small Offices



Small Farms

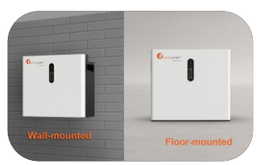
Product Display



Built-in WiFi / Bluetooth for Remote Monitoring



Longer Lasting LiFePO4 Battery



Wall-mounted / Floor-mounted Installation



⩾6000 High Cycle Life

LiFePO4 Battery

LPBA Series | LPBA48100~48250WG1

Low-voltage



Specifications

Model	LPBA48100WG1	LPBA48200WG1	LPBA48206WG1	LPBA48250WG1
Battery Type	LiFePO4			
Nominal Energy	5.12kWh	10.24kWh	10.5kWh	12.8kWh
Nominal Voltage	51.2V			
Operating Voltage	44.8~57.6V			
Max. Charge/Discharge Current[1]	Charge 100A Discharge 120A	Charge 180A Discharge 180A	Charge 200A Discharge 200A	Charge 230A Discharge 230A
Peak Charge/Discharge Current	150A @ 15s	250A @ 15s	250A @ 15s	300A @ 15s
Max. Charge/Discharge Power	Charge 5100W Discharge 6100W	Charge 9200W Discharge 9200W	Charge 10kW Discharge 10kW	Charge 12kW Discharge 12kW
Depth of Discharge(DOD)	95%			
Scalability	Up to 32 units in parallel			
Communication	CAN2.0/RS485/WIFI/Bluetooth			
Protection Level	IP21			
Cycle Life	⩾6000@ 25°C			
Operating Temperature	Charge 0~55°C Discharge -20~55 °C			
Display	LED			
Installation	Wall-Mounted, Floor-Mounted			
Protection	BMS, Fuse, Breaker, MX+OF			
Warranty[2]	7 Years			
Net Weight	48KG	82KG	83KG±3%	89KG
Gross Weight	54KG	103KG	103KG±3%	109KG
Product Dimension	565×390×182MM	625X390X259MM	625X390X259MM	625X390X259MM
Package Dimension	664×494×261MM	744X514X436MM	744X514X436MM	744X514X436MM

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

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

Features

- Build-in WiFi / Bluetooth for real-time monitoring.
- Max. 32 units in parallel.
- Compatible with leading inverter brands.
- Flexible Installation: Wall-mounted or floor-mounted.
- Equipped with over-voltage trip protection.
- Equipped with Fire Protection Module (LPBA48200WG1 / LPBA48250WG1 Model).

Scenarios



Houses



Off-grid Cabins



Small Stores



Small Offices



Small Farms

Product Display



Real-time Monitoring



Max. 32 Pcs in Parallel



Over-voltage Trip Protection



Longer Lasting LiFePO4 Battery

LiFePO4 Battery

LPBA Series | LPBA48100-WF



Features

- LiFePO4: Higher safe performance and longer cycle life.
- Multiple Protection with built-in smart BMS,breaker and fuse.
- Compatible with leading inverter brands.
- Flexible Installation: Wall- Mounted or Floor-Mounted.
- Scalable expansion up to 12 pcs in parallel.
- Resist harsh environment with IP65-rate protection.
- Aerosol Fire Extinguishing System.
- Up to 10-year long warranty.
- Build-in WiFi / Bluetooth for real-time monitoring.

Scenarios


Houses


Off-grid Cabins


Small Stores


Small Offices


Small Farms

Specifications

Model	LPBA48100-WF
Battery Type	LiFePO4
Nominal Energy	5.12kWh
Nominal Capacity	100Ah
Nominal Voltage	51.2V
Operating Voltage	44.8-57.6V
Recommended Charge/Discharge Current	50A
Max.continuous charge/Discharge current[1]	60A
Peak Charge/Discharge Current(15s)	100A
Scalability	Max. 12 pcs in Parallel(61.44kWh)
Depth of Discharge(DOD)	⩾95%
Display Type	LED
Protection Degree	IP65
Working Temperature Range	Charge: 0°C~55 °C
	Discharge: -20°C~55 °C
Storge Temperature Range	0°C~+35°C
Humidity	5%~95%
Altitude	⩽ 2000M
Communication	RS485/CAN
Cycle Life[2]	⩾6,000 Cycles
Installation	Wall-Mounted / Floor-Mounted
Protection	Built-in smart BMS, Breaker, Fuse
Warranty Period	10 Years
Certification	UN38.3、CE-EMC、IEC 62619、CB
Product Weight	48kg±3%
Package Weight	54kg±3%
Product Dimension	665x440x175 mm
Package Dimension	737x512x243 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.

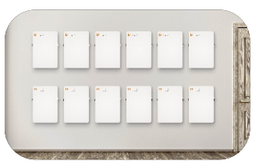
Product Display


IP65 Protection Level



⩾6000 High Cycle Life


Aerosol Fire Extinguishing System


Support 12 Pcs in Parallel

LiFePO4 Battery

LPBA Series | LPBA48300/350TG1

Low-voltage



Features

- Build-in WiFi / Bluetooth for real-time monitoring.
- Equipped with over-voltage trip protection.
- Enhanced safety with fire protection module.
- Max. 32 units in parallel.
- Compatible with leading inverter brands.

Scenarios



Houses



Off-grid Cabins



Small Stores



Small Offices



Small Farms

Specifications

Model	LPBA48300TG1	LPBA48350TG1
Battery Type	LiFePO4	
Nominal Energy	15.36kWh	17.92kWh
Nominal Voltage	51.2V	
Operating Voltage	44.8~57.6V	
Max. Charge/Discharge Current[1]	Charge 150A Discharge 250A	Charge 175A Discharge 250A
Peak Charge/Discharge Current	300A @ 15s	
Max. Charge/Discharge Power	Charge 7700W Discharge 13kW	Charge 9kW Discharge 13kW
Depth of Discharge(DOD)	95%	
Scalability	Up to 32 units in parallel	
Communication	CAN2.0/RS485/WIFI/Bluetooth	
Protection Level	IP21	
Cycle Life	⩾6000@ 25℃	
Operating Temperature	Charge 0~55℃ Discharge -20~55 ℃	
Display	LED	
Installation	Floor-Mounted	
Protection	BMS, Fuse, Breaker, MX+OF	
Warranty[2]	7 Years	
Net Weight	120KG	
Gross Weight	142KG	
Product Dimension	865X400X235MM	
Package Dimension	949X524X436MM	

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

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

LiFePO4 Battery

LPBF Series | LPBF48300 & LPBF48350

Low-voltage



Features

- High-quality lithium iron phosphate battery.
- Big capacity with small volume for household.
- ≥6000 times deep cycle charge and discharge.
- High class of safety with built-in BMS protection.
- Scalable expansion up to 6 pcs in parallel.
- Up to 5-year long warranty.

Specifications

Model	LPBF48300	LPBF48350
Battery Type	LiFePO4	
Nominal Energy	15kWh	17.5kWh
Nominal Voltage	51.2V	
Operating Voltage	48-57.6V	
Recommend Charge/Discharge Current[1]	⩽120A	⩽200A
Maximum Charge/Discharge Current(15s)	200A	250A
Recommend Charge/Discharge Power[1]	⩽6,000W	
Maximum Charge/Discharge Power(15s)	10，000W	
Depth of Discharge(DOD)	⩾95%	
Scalability	Max. 6 pcs in Parallel (90kWh)	Max. 6 pcs in Parallel (105kWh)
Communication	RS485/CAN	
Protection Degree	IP21	
Cycle Life[2]	⩾6,000 Cycles	
Charging Temperature Range	0°C-55 °C	
Discharging Temperature Range	-20°C-60 °C	
Display	LED	LCD+LED
Installation Style	Floor-Mounted	
Protection	Built-in Smart BMS, Breaker, Fuse	
Warranty	5 Years	
Certification	UN38.3、CE-EMC、IEC 62619	UN38.3、CE-EMC、IEC 62619
Product Weight	154KG	162KG
Package Weight	177KG	185KG
Product Dimension	615x350x955MM	622x350x955MM
Package Dimension	718x450x1112MM	718x450x1112MM

[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.

Scenarios



Houses



Off-grid Cabins



Small Stores



Small Offices



Small Farms

Product Display



Real-time status via LCD Display



Support 6 Pcs in Parallel

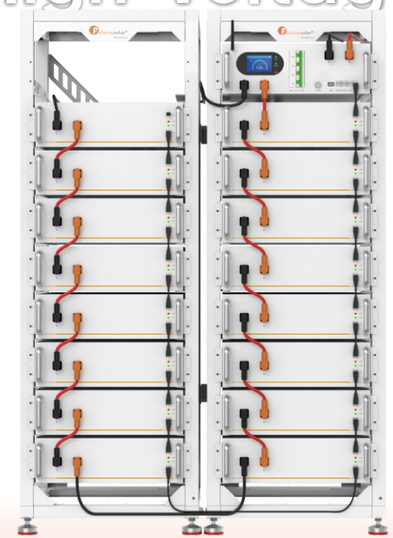


LPBF48300/48350 Wire Ports

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 layerswith 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		FLH48100UG2MN[1]			
Battery Type		LiFePO4			
Nominal Energy		5.12kWh			
Nominal Voltage		51.2V			
Nominal Capacity		100Ah			
Number of Battery Modules		5(Min)	8	12	16(Max)[2]
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[3]		100A			
Depth of Discharge(DOD)		90%			
Display Type		LED+LCD(Touch)			
IP Rating of Enclosure		IP20			
Working Temperature Range		Charge:0℃~+55℃			
		Discharge:-20℃~+55℃			
Storge Temperature Range		0℃~+35℃			
Humidity		5%~95%			
Altitude		⩽3,000M			
Cycle Life[4]		⩾ 6,000 Cycles			
Installation		Rack-Mounting			
Protection		Built-in Smart BMS, Breaker, Fuse, Thermal Runaway Management System			
Communication Port		CAN2.0/RS485/WIFI/Bluetooth			
Warranty Period[5]		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[1]	IFpP54/150/120/[(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] N=5,6,7,8,9,10,11,12,13,14,15 or 16. N is the quantity of battery module connected series and should not exceed 16. (5⩽N<16)

[2] Currently, the battery supports a maximum of 16 battery modules. For the entire energy storage system, confirm the inverter's maximum supported voltage range to determine the maximum number of battery modules that can be installed.

[3] Max. continuous charge/discharge current is affected by temperature and SOC.

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

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

*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				
OperatingTemperature Range		FLH96050SG2 Charge: 0°C~+55°C / Discharge:-20°C~+55°C		FLH96050SG2-H Charge/Discharge:-20°C~+55°C		
Storge Temperature Range		0℃~+35℃				
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				
	Package Dimension(with base)	712x497x352MM				
Battery Module FLH96050SMG2 FLH96050SMG2-H	Battery Designation[4]	IFpP/41/150/102/[(1P32S)NS]M/-10+50/90				
	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

LiFePO4 Battery

FLH Series | FLH48314UG1

High-voltage



Features

- Remote monitoring via Fsolar APP.
- Peace of mind with fire protection module.
- Pack-level air cooling, high-efficiency thermal management.
- Max. 16 pcs (257kWh) in series, max. 16 clusters (4,1MWh) in parallel.
- ≥ 8000 cycles life.
- User-friendly touchscreen.

Scenarios



Small and Mid-sized Factories



Community Hospitals



Neighborhood Supermarkets



Farms



Hotels

Specifications

Model		FLH48314UG1MN[1]			
Battery Type		LiFePO4			
Nominal Energy		16.07kWh			
Nominal Voltage		51.2V			
Nominal Capacity		314Ah			
Number of Battery Modules		5(Min)	8	12	16(Max)[2]
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 Rated Energy		80.38kWh	128.61kWh	192.92kWh	257.22kWh
Rated Usabled Power		72.34kWh	115.74kWh	173.62kWh	231.49kWh
Recommend Charge/Discharge Current		157A			
Max. Continuous Charge/Discharge Current[3]		240A			
Depth of Discharge(DOD)		90%			
Display Type		LED+LCD (Touch)			
IP Rating of Enclosure		IP20			
Working Temperature Range		Charge:0℃~+55℃			
		Discharge:-20℃~+55℃			
Storge Temperature Range		0℃~+35℃			
Humidity		5%~95%			
Altitude		⩽3,000m			
Cycle Life[4]		⩾ 8,000 Cycles			
Installation		Module Stacking			
Protection		Built-in Smart BMS, MCCB with shunt trip function, Fuse			
Communication Port		RS485 / CAN / Enthernet / WiFi(2.4G)[5]			
Warranty Period[6]		10 Years			
Certification		CE/ IEC 62619/IEC62040/UN38.3			
Control Module FLH48314UCG1	Product Dimension	780x525.4x180mm			
	Package Dimension	890x602x333mm			
	Product Weight Approximate	31.5±3%kg			
	Package Weight Approximate	42.8±3%kg			
Battery Module FLH48314UMG1	Product Dimension	819.5x525.4x260mm			
	Package Dimension	925x560x405mm			
	Product Weight Approximate	123±3%kg			
	Package Weight Approximate	144.5±3%kg			
	Battery Designation	IFpP74/176/120/[1P16S]E/-20+50/90			
FLH48314UG1 Accessory Kit	Package Dimension Approximate	867x602x318mm			
	Package Weight Approximate	52±3%kg			

[1] N=5,6,7,8,9,10,11,12,13,14 or 16. N is the quantity of battery module connected series and should not exceed 16.(5⩽N⩽16)

[2] Currently, the battery supports a maximum of 16 battery modules. For the entire energy storage system, confirm the inverter's maximum supported voltage range to determine the maximum number of battery modules that can be installed.

[3] Max. continuous charge/discharge current is affected by temperature and SOC.

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

[5] A 10M/100M Ethernet port (RJ45) is provided for connecting the system to your local network via a router or switch. This connection enables core functions: software upgrades, remote monitoring & diagnostics, and cloud data synchronization. Advanced cloud-based services are in development. Availability and activation will be announced by the supplier. Contact them for future software updates to enable these features.

[6] Refer to Felicitysolar's warranty policy for applicable conditions.

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

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~50C 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 O.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 sereis 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 specking, the most important factors is depth of discharge.

C&I Energy Storage System

IVGM Series 50kW inverter & FLH Series 61kWh 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-conditoning 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



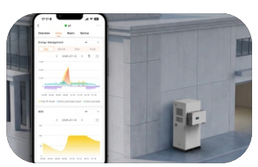
Hotels

Specifications

Model	FLH-E60
System Specification	
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
Battery Technical Specification	
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 (℃)	0~35℃
Operating Temperature Range	Charge: 0~55℃
	Discharge: -20~55℃
Depth of Discharge	90%
Cycle Life	⩾6000 (0.5C Charging / Discharging@25±2℃), 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

Liquid Cooling All-in-one System

FelicityMatrix 500 Series



Features

- BAT, BMS, PCS, EMS integration.
- Remote monitoring via Fsolar APP.
- Grid-to-off-grid Transfer.
- Peace of mind with fire protection module.
- C4 anti-corrosion and IP55 cabinet.
- Liquid-cooling chiller for optimal system temp.
- Reliable detection with smoke, temp, and immersion sensors.
- ≥ 8000 cycles life.

Scenarios



Small and Mid-sized Factories



Community Hospitals



Neighborhood Supermarkets



Farms



Hotels

Specifications

Model	FLM500-125/261
DC Side	
Cell type	LFP 3.2 V / 314 Ah
System battery configuration	260S1P
Nominal capacity	261.2kWh
Nominal voltage	832V
Voltage range	728~936V
Charge/discharge rate	0.5P
Depth of charge and discharge	95%
AC Side	
Nominal power	125kW
Nominal voltage	400V
Voltage range	360~440V
Access way	3P4L
Nominal frequency	50Hz/60Hz
THD	⩽3%
DC component	⩽0.5%
Power factor range	-1~1
Unbalance load capacity	100%
System Parameter	
Maximum System efficiency	⩾90%
Cycle Life[1]	⩾8000
Dimensions (W * H * D)	1050*2400*1350(mm)
Weight	2670KG
Degree of Protection	IP55
Anti-corrosion Degree	C4
Noise	⩽75db
Operation Humidity Range	0-95%
Operation Temperature Range	-25~55°C(Derating from 45°C)
Operating Altitude	2000m(Derating from 2000m)
Temperature Control Method	Liquid cooling
Fire Suppression System	Aerosol fire extinguishing equipment,Smoke detector, Heat detector, Water fire protection
Communication Interface	Ethernet /RS485
Max.Parallel Quantity	"On grid：20 pcs ; Off grid：6 pcs"
Standard	UN38.3、IEC62477、IEC61000、IEC62619、IEC63056、EN50549、IEC62109

[1]This is provided by the battery cell manufacturer. Based on cell test condition of 25±2°C, 0.5C charge and discharge rate and SOH=70%.

*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 50kW inverter & FLH 61 kWhHV LFP battery



Features

- Supports Single-phaseInput, Three-phase Output
- 150% UnbalancedThree-phase Output
- Wide Grid StandardCompatibility
- Remote Monitoringvia FSolar APP
- Max. Energy StorageCapacity Reaching 5.7MWh
- LFP Battery with FireProtection Module
- Time of Use Function,Smarter Grid Utilization
- IP65-rated Protection

Scenarios



Small and Mid-sized Factories



Community Hospitals



Neighborhood Supermarkets



Farms



Hotels

Specifications

Inverter Model		IVGM50KHP3G2			
BatteryInput Data					
Battery Type		LFP (LiFePO4)			
Battery Voltage Range		160~800vdc			
Max.Charging/Discharging Current		50+50(A)			
Number of Battery Input		2			
PV String Input Data					
Max. DCAccess Power		100kW			
Max. DC Input Power		80kW			
Max. DCInput Voltage		1000Vdc			
Start-up Voltage		180vdc			
Rated DCInput Voltage		600vdc			
MPPTRange		150-850vdc			
Full Load DCVoltage Range		550-850vdc			
PVInput Current		36+36+36+36(A)			
Max. PVIsc		55+55+55+55(A)			
No.of MPP Trackers		4			
No.of Strings Per MPP Tracker		2			
AC Output Data					
Rated AC OutputPower		50kW			
Max. AC Output Power		55kW			
AC Output Rated Current		72.5A			
Max.AC Current		79.7A			
Rated AC Voltage		110V/190V, 115V/200V, 120V/208V, 127V/220V, 133V/230V, 200V/346V, 220V/380V, 230V/400V,240V/415V, 277V/480V			
AC Wiring Mode		3L+N+PE			
Rated AC Frequency		50 /60 Hz (45~55Hz/55~65Hz)			
General Data					
Net Weight		87.1KG			
Gross Weight		107.1KG			
Product Dimension		940*582'340MM			
Package Dimension		1114*774'469MM			
Protection Degree		IP65			
Warranty		10Years			
BatteryModel		FLH48100UG2			
Battery Type		LiFePO4			
Nominal Energy		5.12kWh			
NominalVoltage		51.2V			
Nominal Capacity		100Ah			
Number of Battery Modules		5(Min)	8	12	16(Max)^[1]
System Nominal Energy		25.6kWh	40.96kWh	61.44kWh	81.92kWh
System NominalVoltage		256V	409.6V	614.4V	819.2V
System Operating Voltage		232~288V	371.2~460.8V	556.8~691.2V	742.4~921.6V
Recommend Charge/Discharge Current		50A			
Max. Continuous Charge/Discharge Current[2]		100A			
Depth of Discharge(DOD)		90%			
Display Type		LED+LCD			
IPRatingof Enclosure		IP21			
Cycle Life[3]		> 6000 Cycles			
nstallation		Rack-Mounting			
Warranty Period[4]		10 Year			
Control Module FLH48100UCG2	Product Dimension	482.6x565x150MM			
	Package Dimension	687x562x269MM			
	Product Weight Approximate	10.3KG			
	Package Weight Approximate	16.7KG			
Battery Module FLH48100UMG2	Product Dimension	482.6x565x133MM			
	Package Dimension	687x562x250MM			
	Product Weight Approximate	41.3KG			
	Package Weight Approximate	45KG			
	Battery Designation[5]	IFPP/54/150/120/[(1P16S)NS]M/-20+50/95			

[1ICurently, The Battery Supports a Maximum of 16 BMUs. For the Entire Energy Storage System, Confirm the Inverter'sMaximum Supported Voltage RangetoDetermine 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%.

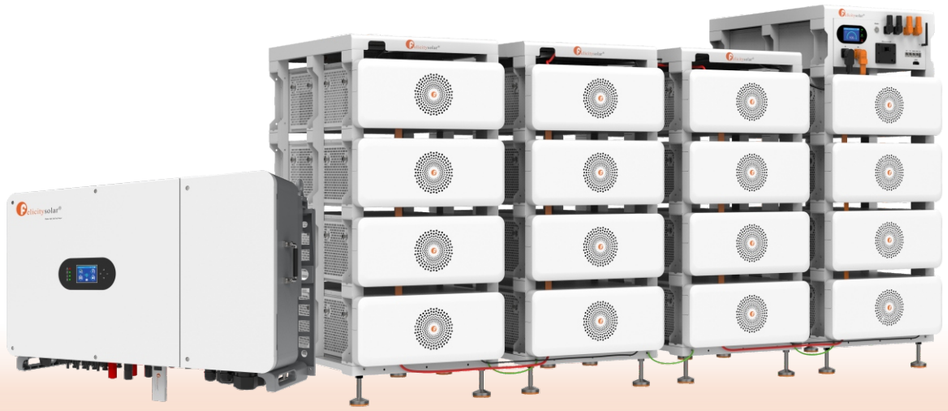
[4] Refer to Felicitysolar's Warranty Policy for applicable conditions.

[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.

Hybrid C&I ESS

IVGM50KHP3G2+ FLH48314UG1



Features

- 16.07 kWh LFP Modules
- Better Price for Larger Systems
- Supports flexible configuration of 5-16 battery modules
- 200% PV Access
- Supports up to 100KW PV access with 4 MPPTs and 8 PV strings
- 1-Phase In /3-Phase Out AC Conversion
- 1.5x Off-Grid Surge Power
- Smart TOU Energy Management
- 50 kW System Power
- 257 kWh Storage Capacity

Scenarios



Small and Mid-sized Factories



Community Hospitals



Neighborhood Supermarkets



Farms



Hotels

IVGM50KHP3G2 Hybrid Inverter

Battery Input Data	
Battery Type	LFP (LiFePO4)
Battery Voltage Range	160-800 Vdc
Max. Charging/ Discharging Current	50A+50A/50A+50A
Number of Battery Inputs	2
PV String Input Data	
Max. DC Input Power	65kW
Min. DC Input Voltage	150Vdc
Max. DC Input Voltage	1000Vdc
Start-up Voltage	250Vdc
Rated DC Input Voltage	600Vdc
MPPT Range	200-850Vdc
Full Load DC Voltage Range	450-850 Vdc
PV Input Current	36+36+36+36A
Max. PVIsc	55+55+55+55A
No. of MPP Trackers	4
Strings per MPPT Tracker	2
AC Input/Output Data	
Rated AC Output Power	50kW
Max. AC Output Power	55kW
Rated /Max. AC Current	72.5A/79.7A
Rated AC Voltage	220/380,230/400 Vac (-20%~+15%)
AC Wiring Mode	3W+N+PE
Rated AC Frequency	50/60 Hz (45-55 Hz/55-65 Hz)
THDI	<3% at rated power
Power Factor	0.8 leading to 0.8 lagging
Grid Regulation	NRS 097-2-1/VDE4105/EN50549-1
General Data	
Humidity	0-95% (No Condensation)
Protection Degree	IP65
Operating Temperature	40 to 60°C (>50°C derating)
Net/Gross Weight	87.1kg/107.1kg
Product Dimension	940x582x340 mm
Warranty	10Years

FLH48314UG1 High-Voltage Battery System

Overall System Parameters				
Model	FLH48314UG1			
Number of Battery Modules	5 (Min)	8	12	16 (Max)
System Nominal Voltage	256V	409.6V	614.4V	819.2V
System Operating Voltage	232-288V	371.2-460.8V	556.8-691.2V	742.4-921V
System Rated Energy	80.38kWh	128.61 kWh	192.92kWh	257.12 kWh
System Usable Energy	72.34 kWh	115.74 kWh	173.62 kWh	234.41 kWh
Humidity	5%-95%			
Enclosure Protection	IP20			
Installation	Module Stacking			
Display Type	LED+LCD (Touch)			
Warranty	10 Years			
Battery Technical Specifications				
Battery Chemistry/Cell Type	LiFePO4/314 Ah			
Battery Module Energy	16.07kWh			
Altitude	⩽3000m			
Module Nominal Voltage	51.2V			
Recommended Charge/ Discharge	157A			
Max. Continuous Charge/Discharge [1]	240A			
Battery Communication	RS485 /CAN /Ethernet/WiFi (2.4G)			
Storage Temperature	0-35°C			
Operating Temperature [2]	0-55°C/-20-55°C			
Depth of Discharge	90%			
Cycle Life	>8,000 @0.5C,25±2°C,EOL70%			
Certification	CE /IEC 62619 /IEC 62040/UN38.3			

[1] Current is affected by temperature and SOC.
[2] Derated operation above 45°C.

Hybrid C&I ESS

IVGM125KHP3G1 + FLH48314UG1



Features

- 0 ms Seamless Transfer
- Flexible Multi-Source Integration
- Smart Monitoring. Lower O&M
- Scalable to 1.5 MW /4.1 Mwh
- 125 kW System Power
- 257 kWh Storage Capacity
- 10 Channels PV Input
- Dual Battery Inputs
- Smart TOU Energy Management

Scenarios



Small and Mid-sized Factories



Community Hospitals



Neighborhood Supermarkets



Farms



Hotels

IVGM125KHP3G1 Hybrid Inverter

Battery Input Data	
Battery Type	LFP (LiFePO4)
Battery Voltage Range	160-950Vdc
Max. Charging/Discharging Current	120A+120A/120A+120A
Number of Battery Inputs	2
PV String Input Data	
Max. DC Input Power	250 kW
Max. DC Input Power per Tracker	25kW
Max. DC Input Voltage	1000 vdc
Start-up Voltage	180vdc
Rated DC Input Voltage	600vdc
MPPT Range	150-950vdc
Full Load DC Voltage Range	555-950vdc
PV Input Current	10x45A
Max. PV Isc	10x68A
No. of MPP Trackers	10
Strings per MPPT Tracker	1/1
AC Input/Output Data	
Rated AC Input/Output Power	125kW
Max. AC Input/Output Power	137 kVA
AC Rated /Max. Current	1812A/198.6A
Max. Output Overcurrent Protection	270A
Max. AC Bypass (gnd to load)	270A
Rated AC Voltage	220/380,230/400 Vac (-20%~+15%)
AC Wiring/Frequency	3L+N+PE/S0/60Hz
THDI	<3% (at rated power)
Power Factor	0.8 (leading) to 0.8 (lagging)
Efficiency & General Data	
Max./Euro/ MPPT Efficiency	98.8%/98.2%/99.90%
Protection Degree	IP66
Operating Temperature	40 to 60°C (>45°C derating)
Net/Gross Weight	151.6kg/208.5 kg
Product Dimension	1250x796x364mm
Warranty	10 Years

FLH48314UG1 High-Voltage Battery System

Overall System Parameters				
Model	FLH48314UG1			
Number of Battery Modules	5 (Min)	8	12	16 (Max)
System Nominal Voltage	256V	409.6 V	614.4 V	819.2V
System Operating Voltage	232-288V	371.2-460.8 V	556.8-691.2 V	742.4-921 V
System Rated Energy	80.38 kWh	128.61 kWh	192.92 kWh	257.12 kWh
System Usable Energy	72.34 kWh	115.74 kWh	173.62 kWh	234.41 kWh
Humidity	5%-95%			
Enclosure Protection	IP20			
Installation	Module Stacking			
Display Type	LED+LCD (Touch)			
Warranty	10 Years			
Battery Technical Specifications				
Battery Chemistry/ Cell Type	LiFeP04/314 Ah			
Battery Module Energy	16.07kWh			
Altitude	⩽3000m			
Module Nominal Voltage	51.2V			
Recommended Charge / Discharge	157A			
Max. Continuous Charge/Discharge [1]	240A			
Battery Communication	RS485/CAN /Ethernet/WiFi (2.4G)			
Storage Temperature	0-35°C			
Operating Temperature [2]	0-55°C/-20-55°C			
Depth of Discharge	90%			
Cycle Life	>8,000 @0.5C,25+2°C,EOL70%			
Certification	CE/IEC 62619/1EC 62040/UN38.3			

[1] Current is affected by temperature and SOC.
[2] Derated operation above 45°C.

Energy Storage System

IVGM125KHP3G1+FLH-E257



Features

- 125kW Hybrid Power Platform
- Assembled 257 kWh Cabinet
- Modular and Flexible Expansion.
  Scalable to 98.6 MWh
- Engineered for Outdoor Reliability
- IP55 Cabinet Protection
- 250kW Max. PV Input
- Intelligent Temperature Control
- 314Ah Cell Capacity
- 12 Units Max. Parallel Operation

Scenarios



Small and Mid-sized Factories



Community Hospitals



Neighborhood Supermarkets



Farms



Hotels

IVGM125KHP3G1 Hybrid Inverter

Battery Input Data	
Battery Type	LFP (LiFePO4)
Battery Voltage Range	160-950 Vdc
Max. Charging / Discharging Current	120A+120A/120 A+120A
Number of Battery Inputs	2
PV String Input Data	
Max. DC Input Power	250 kW
Max. DC Input Power per Tracker	25 kW
Max. DC Input Voltage	1000 Vdc
Start-up Voltage	180 Vdc
Rated DC Input Voltage	600 Vdc
MPPT Range	150-950 Vdc
Full Load DC Voltage Range	555-950 Vdc
PV Input Current	10x45A
Max. PV Isc	10x68A
No. of MPP Trackers	10
Strings per MPPT Tracker	2
AC Input/Output Data	
Rated AC Input / Output Power	125 kW
Max. AC Input / Output Power	137 kVA
AC Rated / Max. Current	181.2A/198.6A
Max. Output Overcurrent Protection	270A
Max. AC Bypass (grid to load)	270A
Rated AC Voltage	220/380,230/400 Vac
AC Wiring / Frequency	3L+N+PE/ 50-60 Hz
THDI	<3% at rated power
Power Factor	0.8 leading to 0.8 lagging
Efficiency & General Data	
Max. / Euro / MPPT Efficiency	98.8%/98.2%/99.90%
Protection Degree	IP66
Operating Temperature	-40 to 60°C (>45°C derating)
Net / Gross Weight	151.6 kg/208.5 kg
Product Dimension	1250 x 796 x 364 mm
Warranty	10 years

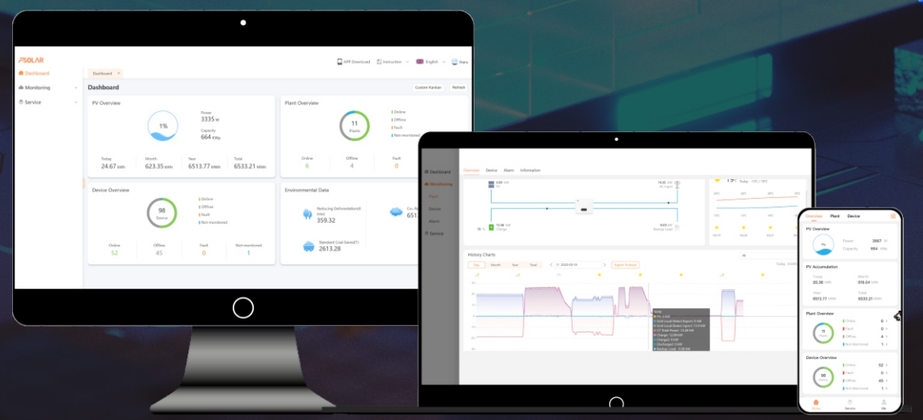
FLH-E257 EnergyStorage Cabinet

Overall System Parameters	
Model	FLH-E257
System Rated Energy	257.22 kWh
Battery Nominal Voltage	819.2V
Battery Operating Voltage	742.4-921.6 V
Humidity	5%-95% RH
Altitude	3000 m
Enclosure /Anti-corrosion	IP55 / C4 (C5 optional)
Dimension (W x D x H)	1350 x 1300 x 2400 mm (without inverter)
Approx. Weight	2780 kg (without inverter)
Heat Exchange / Installation	Smart air cooling / Floor-mounted
Warranty	10 years
Battery Technical Specifications	
Battery Chemistry / Cell Type	LiFePO4/314 Ah
Battery Module Energy	16.07 kWh
Number of Battery Modules	16
Module Nominal Voltage	51.2V
Recommended Charge / Discharge	157A
Max. Continuous Charge / Discharge [1]	240A
Battery Communication	RS485 / CAN
Storage Temperature	0-35°C
Operating Temperature [2]	-20-55°C
Depth of Discharge	90%
Cycle Life	>8,000 @25°C, 0.5P, EOL70%
Certification	UN38.3, CE, IEC62619, IEC63056, IEC62477

[1] Current is affected by temperature and SOC.
[2] Derated operation above 45°C.

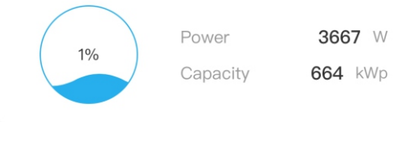
FSOLAR Smart Energy Management Platform

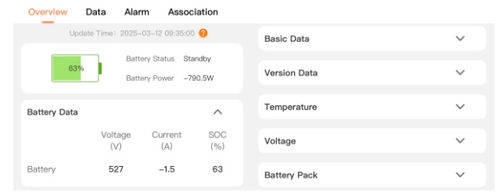
The FSOLAR smart energy management platform is designed to provide comprehensive monitoring, analysis, and management of your energy systems. It allows you to maximize energy efficiency, optimize usage, and enhance system performance.



1. Real-time Data Insight

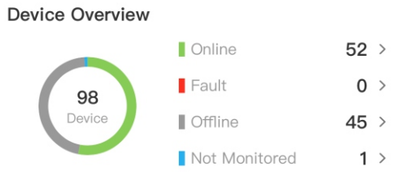
- Track daily, monthly, yearly and cumulative energy generation of all systems and individual units.
- Access battery pack details, including current, voltage, SOC, etc.

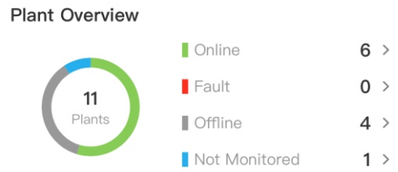




2. System and Device Status Monitoring

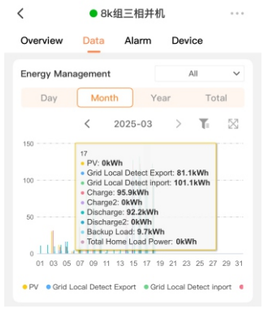
- Real-time devices status: online, offline, faulty, or unmonitored.
- Easily identify the current health and operational status of your system.





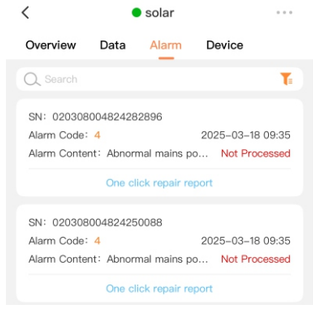
3. Historical Data Analysis

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



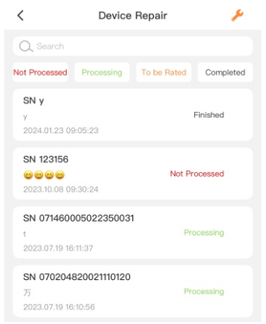
4. Immediate Alerts for Abnormal Situations

- 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 tobuild dynamic dashboards for live insights and configure automated alert.

APP Download

Download on App Store

GET IT ON Google Play

Smart WiFi Module

2.4G WiFi



Features

- Plug and Play with Easy Configuration.
- Enables Remote Inverter Monitoring.
- LED Indicator for Intuitive Working Status

Note: Sold separately; not included with inverter packages.

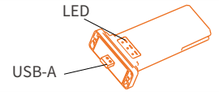
Product Introduction

Smart IOTH2403 WiFi module for solar inverter enables wireless communication between inverters and the monitoring platform. Simply connect the module to the inverter, and install the app from Google Play or the Apple Store. You can then monitor the inverter's parameters in real time through your mobile phone.

Specifications

Model	IOTH2403
General Data	
Product size (width/height/thickness) MM	122.5*68.5*27.2 mm
Packaging Size (width/height/thickness) MM	155*80*35 mm
Net Weight	74.1 g
Gross Weight	128.4 g
WiFi Performance	
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
	HT40(MCS7): -70±2dBm
Electrical Parameters	
Operating Voltage	12V
Maximum Current	500mA
Working Environment	
Protection Level	IP65
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +125°C,< 90%RH
Application Parameters	
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	IOTH2403
NAME	Smart WiFi-S
WiFi NET WORK	2.4G WiFi
PICTURE	
LED status:	802.11b/g/n
PWR	ON,Normalpower supply
COM	ON,Normalpower supply
NET	ON,Normal communication with the 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.

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	IOTH2407
General Data	
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
WiFi Performance	
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
	HT40(MCS7): -70±2dBm
Electrical Parameters	
Operating Voltage	12V
Maximum Current	500mA
Working Environment	
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
Application Parameters	
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

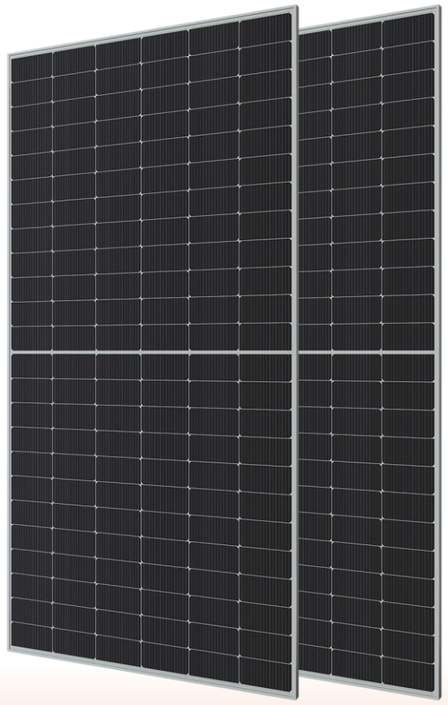
Instructions

Model	IOTH2407
NAME	Smart WiFi-S
WiFi NET WORK	2.4G WiFi
LED status	
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.

Monocrystalline Solar Panels

1-72HTBD-580M



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.

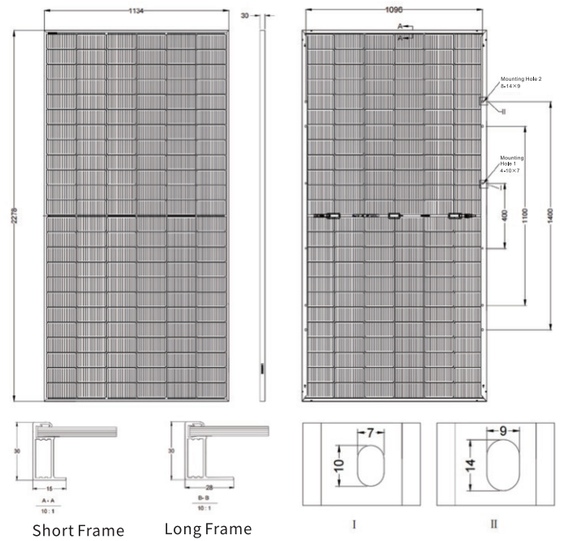
Specifications

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 1×4mm², (+)300mm, (-)200mm (support customization)
Temperature Coefficent of Isc (a_Isc)	+0.045% / ℃
Temperature Coefficent of Voc (β_Voc)	-0.25% / ℃
Temperature Coefficent of Pmax (y_Pmp)	-0.29% / ℃
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℃
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/m², cell temperature 77°F / 25°C, spectrum AM1.5

*Standard Test Conditions: irradiance of 1000W/m², cell temperature at 77°F / 25°C, and AM1.5 solar spectrum

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

Solar Panel Dimensions



PV Combiner Box

PVCB0601/0801

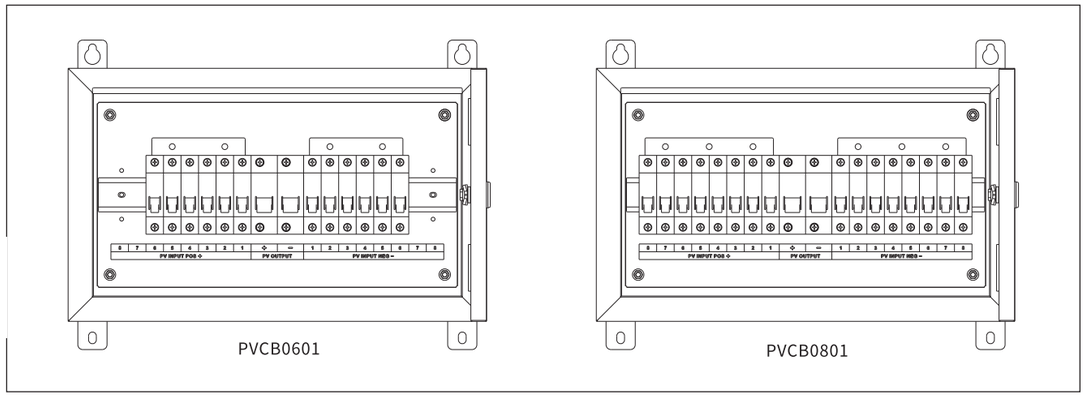


Specifications

Model	PVCB0601	PVCB0801
Max. Imum Input Voltage	500V	500V
Max. Imum Number of Input Paths	6	8
Max. Imum Allowable Input Current of Branch	15A	15A
Max. Imum Output Current	100A	100A
Lightning Protection Device	Surge Switch	
Shell Material	Metal Chassis	
Input Cable Diameter	4~8mm²	
Output Cable Diameter	5~10mm²	
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

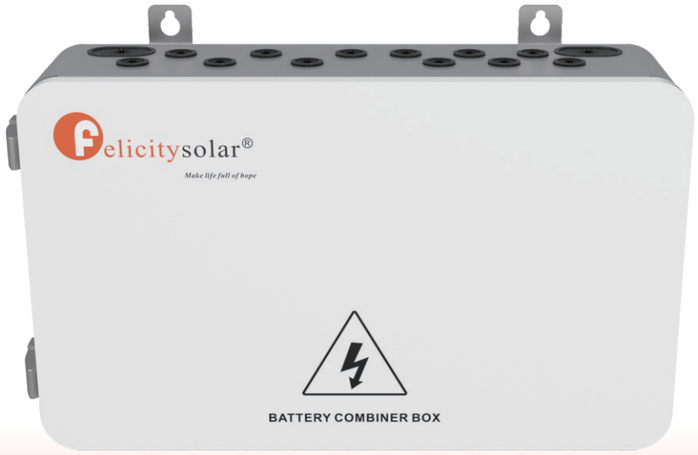


Features

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

Battery Combiner Box

BTCB0606-120/200 & BTCB0303-120/200



Features

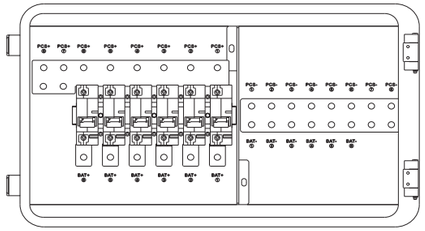
- Convenient circuit wiring.
- Superior flow expansion for higher efficiency.
- Robust high-current handling for reliable performance.

Specifications

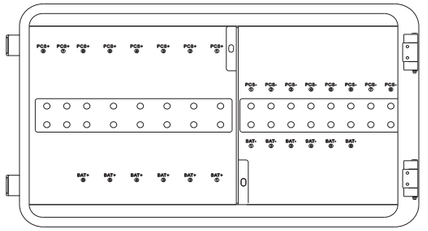
Model	BTCB0606-120	BTCB0606-200	BTCB0303-120	BTCB0303-200
Max. Imum Number of Input Paths	6	6	3	3
Rated Voltage of Branch[V]	80	/	80	/
Branch Rated Current[A]	125	200	125	200
Battery Switch	PEBS-L	/	PEBS-L	/
Shell Material	Metal Chassis			
Protection Level	IP21			
Operating Temperature Range	-10°C~50°C			
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.

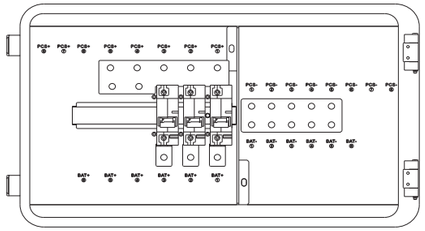
Internal schematic diagram of the product



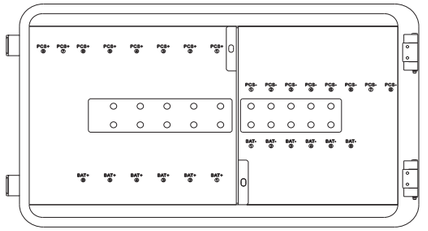
BTCB0606-120 with breaker 125A*6PCS



BTCB0606-200 without breaker



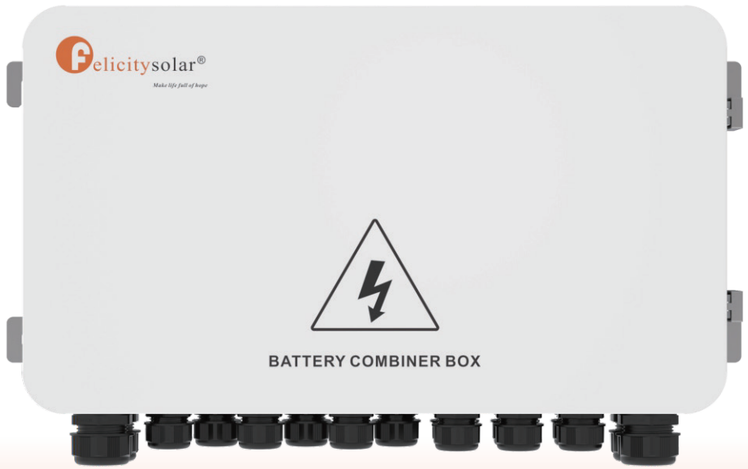
BTCB0303-120 with breaker 125A*3PCS



BTCB0303-200 without breaker

Battery Combiner Box

BTCB0602G1/0301G1

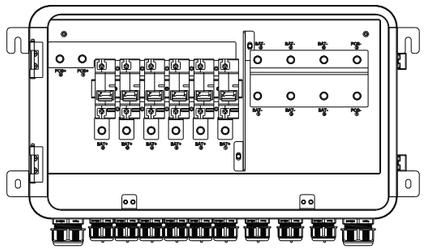


Specifications

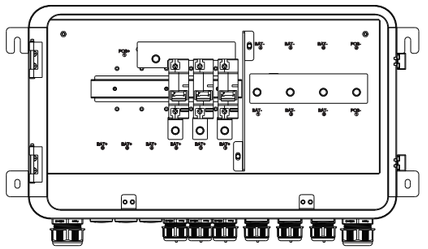
Model	BTCB0602G1	BTCB0301G1
Max. Imum Number of Input Paths	6	3
Rated Voltage of Branch[V]	80	80
Branch Rated Current[A]	125	125
Battery Switch	PEBS-L	PEBS-L
Shell Material	Metal Chassis	
Protection Level	IP65	
Operating Temperature Range	-10°C~50°C	
Net Weight(KG)	9KG	8.1KG
Gross Weight(KG)	11KG	10.1KG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



BTCB0602G1 with breaker 125A*6PCS



BTCB0301G1 with breaker 125A*3PCS

Features

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

Battery Combiner Box

BTCB0402-300-HB



Features

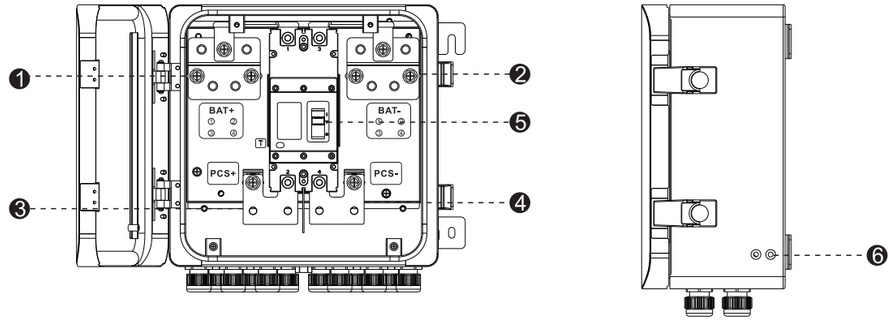
- Fit for FLH series HV battery parallel connection
- 4-input 2-output, IP65-rated protection
- Max. continuous rated current up to 240A
- 300A peak current (≤30min)
- Enhanced safety with built-in DC circuit breaker (1000V 320A)

Specifications

Model	BTCB0402-300-HB
Max. Imum Number of Input Paths	4-Input 2-0utput
Rated Voltage of Branch[V]	1000
Maximum Continuous Rated Current (A)	240
Maximum Peak Current (A)	300(⩽30 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)	⩽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

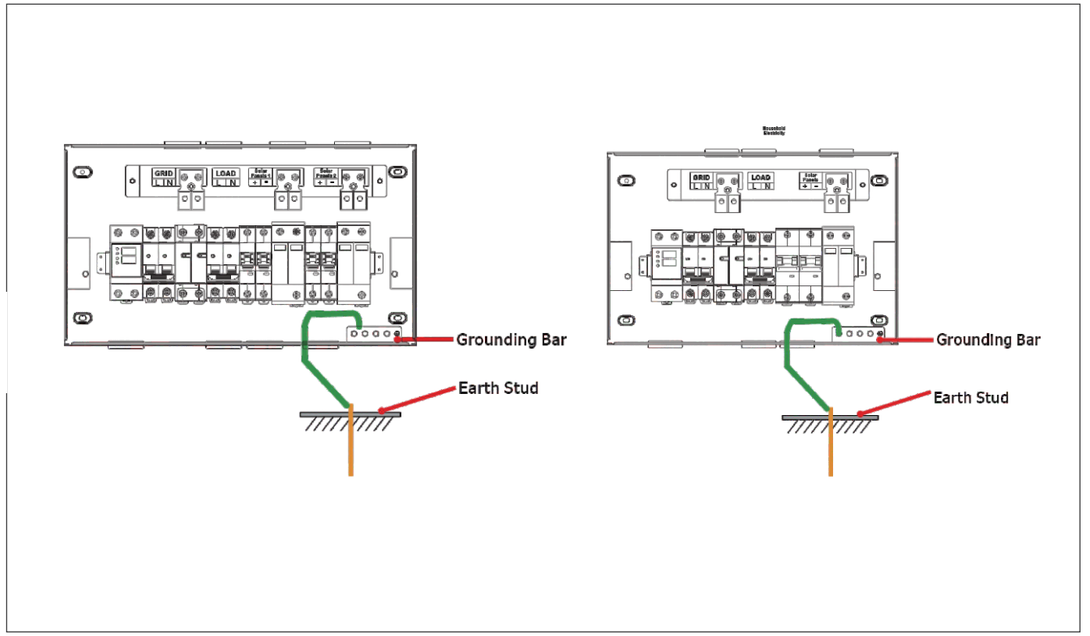
E-box63A &100A



Specifications

Model	Ebox-63A		Ebox-100A	
Rated Voltage	230 VAC			
Rated Current	63A/ 100A (depending on model)			
Frequency	50Hz			
SPD Type	Type II			
Protection Level	IP20			
Operating Temperature	-25°C~+60°C			
Net Weight(kg)	4kg		3.4kg	
Gross Weight	4.8kg		4.2kg	
Product Dimension(mm)	385x220x94		332x220x94	
Package Dimension(mm)	447x282x158		395x282x158	
Circuit	Ebox-63A	EBoX-63A	Ebox-100A	Ebox-100A
Breaker Rating	AC	DC	AC	DC
Recommended Cable Size	16 mm^2Cu	10 mm^2Cu	25 mm^2Cu	25mm^2Cu

Internal schematic diagram of the product



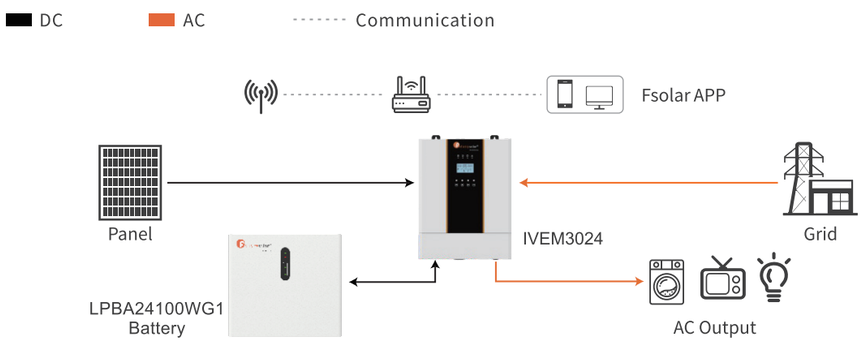
Features

- Integrated AC/DC Protection
- Faster, Simpler Installation
- Designed for Felicity Inverters
- Two Models. One Standardized Protection Solution
- 1-16 kW System Range
- 63A / 80A AC Breakers
- 40A/100A PV Breakers
- 1000V DC Surge Protection
- 440V AC Surge Protection

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.

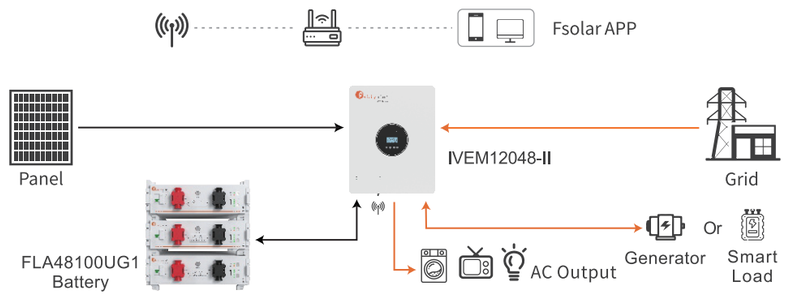

Islands


Houses


Small-size Stores

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 .


Islands

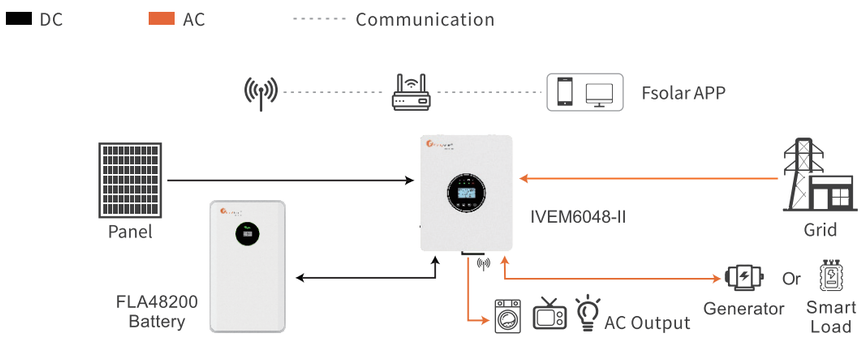

Offices


Stores


Warehouses

Off-grid Residential Energy Storage System

System Configuration: **6kW**



Benefits:

- Reliable Power Supply with Emergency Backup.
- Easy Maintenance & Reduced Operational Costs.
- Flexible Configuration Based on Power Demands and Site Conditions.
- Standalone Generator Interface for Automatic Power Switching.
- Customizable Smart Load’ s Output Duration Time.


Islands

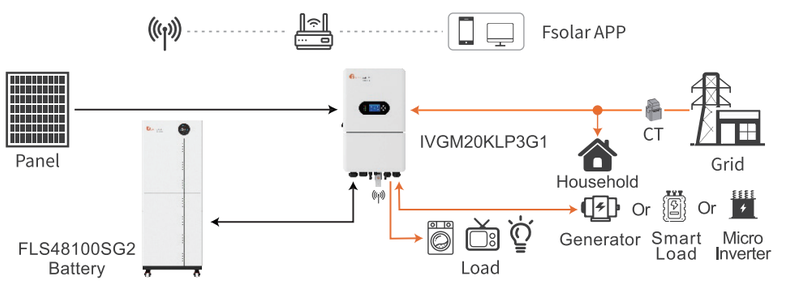

Communication Base Stations


Farms

Solar Energy Storage Solutions

Hybrid Residential Energy Storage System

System Configuration: **20kW**




Islands


Communication Base Stations


Farms

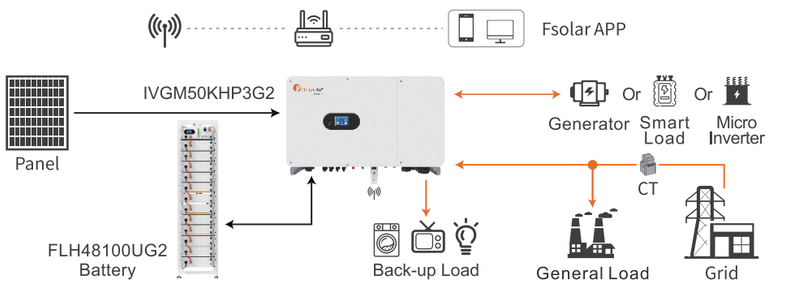

Stores

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**




Factory


Office building


Hospital

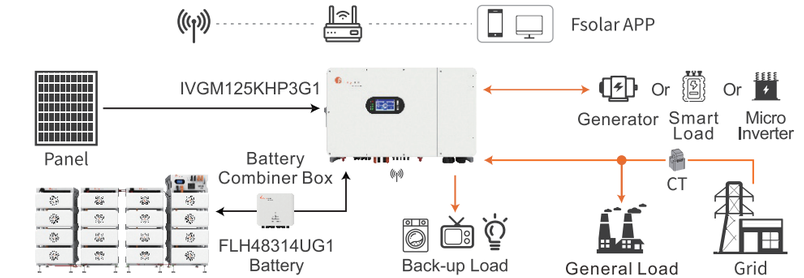

School

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.

Hybrid C&I Energy Storage System

System Configuration: **125kW**




Office building


Industrial Park


Hospital

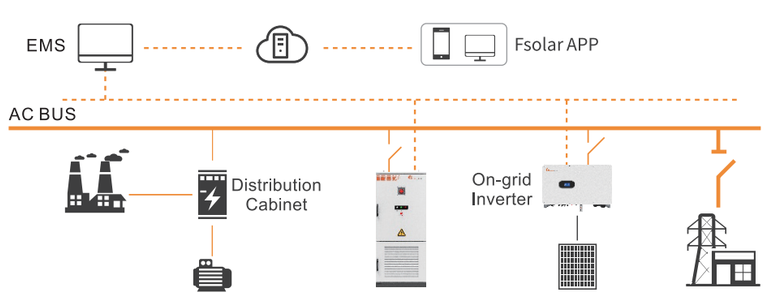

School

Benefits:

- 0ms grid-to-off-grid transfer.
- Easy Maintenance & Reduced Operational Costs.
- Flexible Configuration Based on Power Demands and Site Conditions.
- Remotely Monitor and Control the System via FSOLAR App.
- Supports single-phase input, three-phase output.
- Active PID recovery function for long-term energy yield.

All-in-One C&I Grid-Tied Energy Storage System

System Configuration: **125kW Liquid Cooling System**




Office building


Industrial Park


Hospital


School

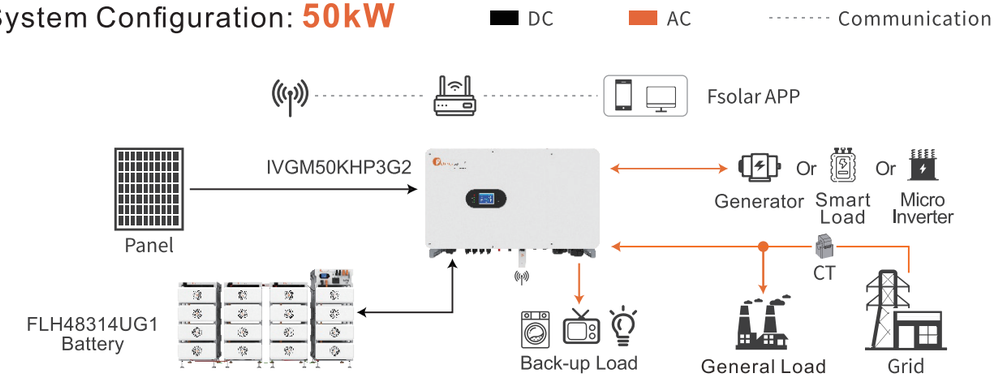
Benefits:

- **Peak Shaving & Valley Filling:** store energy during low-price periods and release it during high-price periods to lower electricity costs.
- **Emergency Backup:** provides temporary power during grid failures or outages, ensuring continuous supply for critical equipment.
- **Demand Capacity Expansion:** enables rapid charging when short-term power demand exceeds transformer capacity, delaying costly distribution system upgrades.

Solar Energy Storage Solutions

Hybrid C&I Energy Storage System

System Configuration: **50kW**




Office building


Factory


Hospital

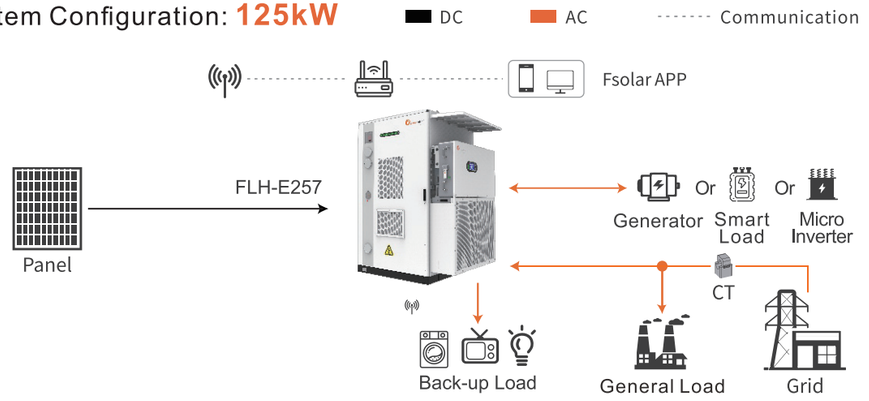

School

Benefits:

- 16.07 kWh LFP Modules:16.07 kWh LFP battery modules with ⩾8,000 cycles deliver long-term reliability and flexible capacity configuration
- Better Value for Larger Systems:A cost-effective battery configuration for larger-capacity energy storage needs
- Flexible Capacity Expansion:Supports up to 16 parallel battery clusters for flexible expansion
- Flexible Support for Unbalanced Loads:Supports uneven load distribution across three phases to accommodate varying load demands.

Hybrid C&I Energy Storage System

System Configuration: **125kW**




Office building


Factory


Hospital


School

Benefits:

- **0 ms Seamless Transfer:** 0 ms grid-to-off-grid transfer helps keep critical loads running during grid outages
- **Flexible Multi-Source Integration:** Integrates solar, battery and grid power, with an optional port configurable for generator, Smart Load or micro-inverter connection
- **Smart Monitoring. Lower O&M:**Remote monitoring and system control via the FSOLAR App simplify maintenance and help reduce operating costs
- **Scalable to 1.5 MW / 4.1 Mwh:**Scale system power up to 1.5 MW and storage capacity up to 4.1 Mwh as project energy demand grows

USER CASES

Residential Solar Energy Storage System



Guinea

House 24kW+52.5kWh



Yemen

House 24kW+30kWh



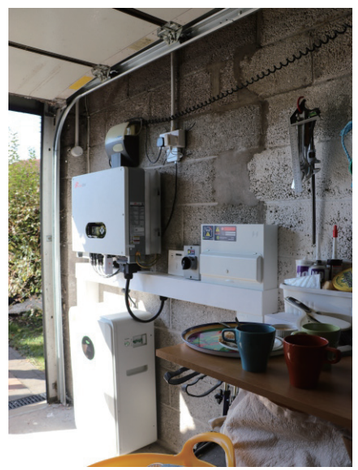
Senegal

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

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

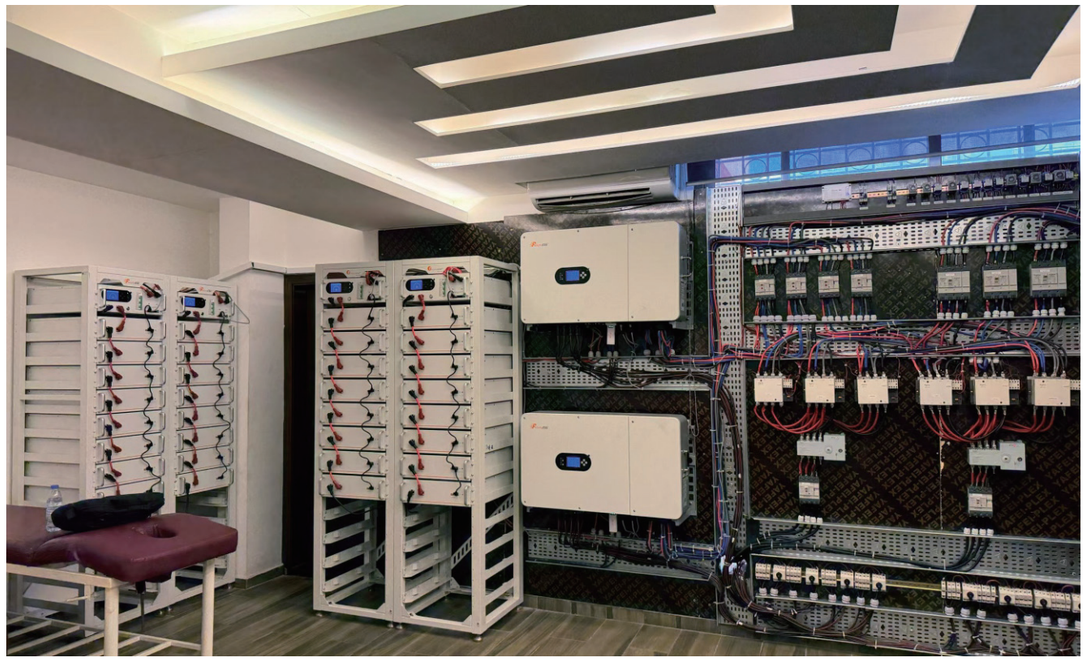
100kW+122.88kWh



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