



- Hybrid Solar Inverter (P1-8)
- Solar Inverter (P9-20)
- LiFePO4 Battery System (P21-44)
- All-in-one System (P45-46)
- Commercial and Industrial System (P47-50)
- Solar GEL Battery (P51-56)
- MPPT Charge Controller (P57-58)
- Solar Panel (P59-60)



Guangzhou Felicity Solar Technology Co.,Ltd.

www.felicitysolar.com

Add: No. 2, Donghua Huaye Road, Renhe Town, Baiyun District, Guangzhou

Global Branches Distribution

30+
Global Branches

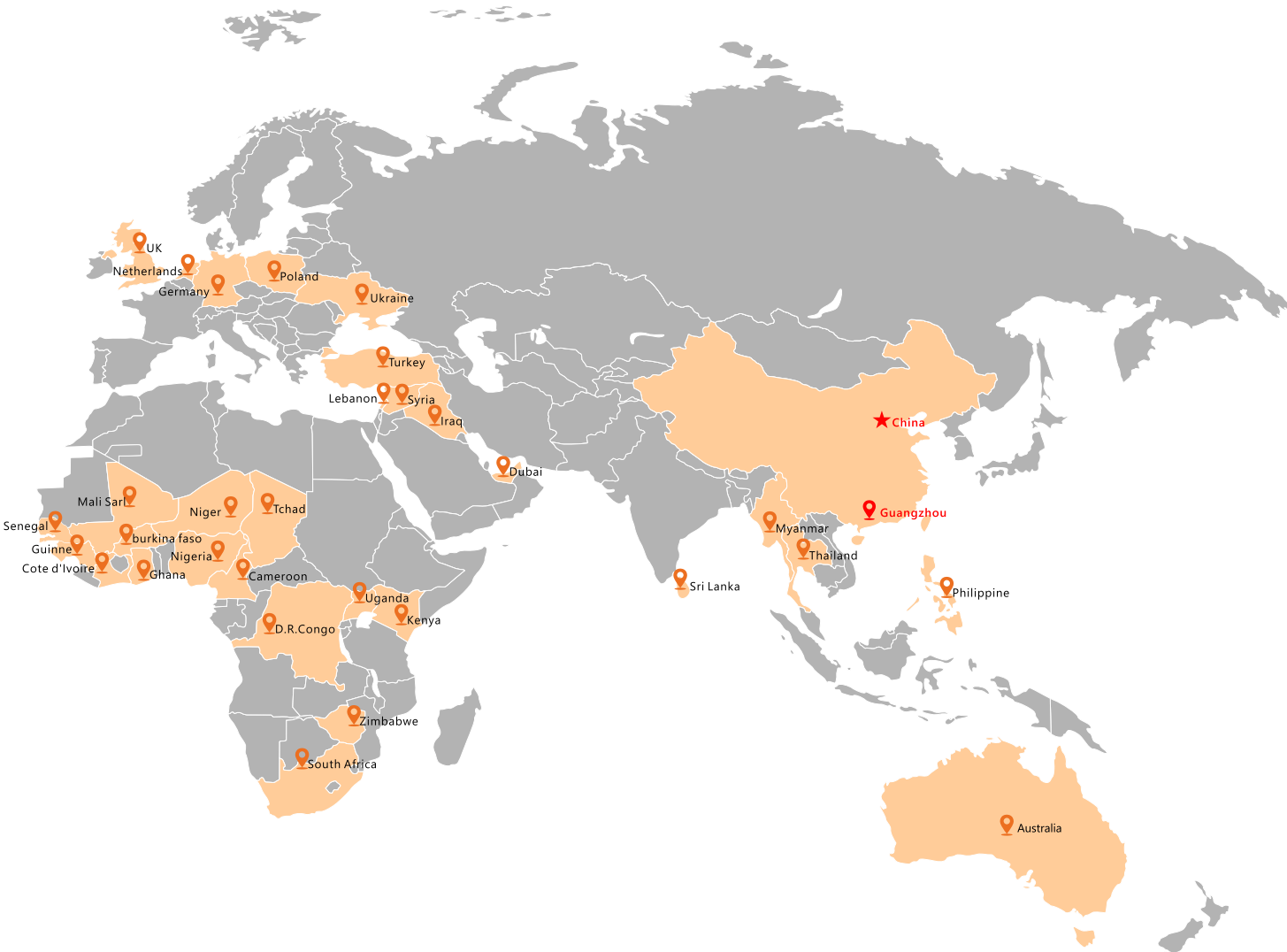
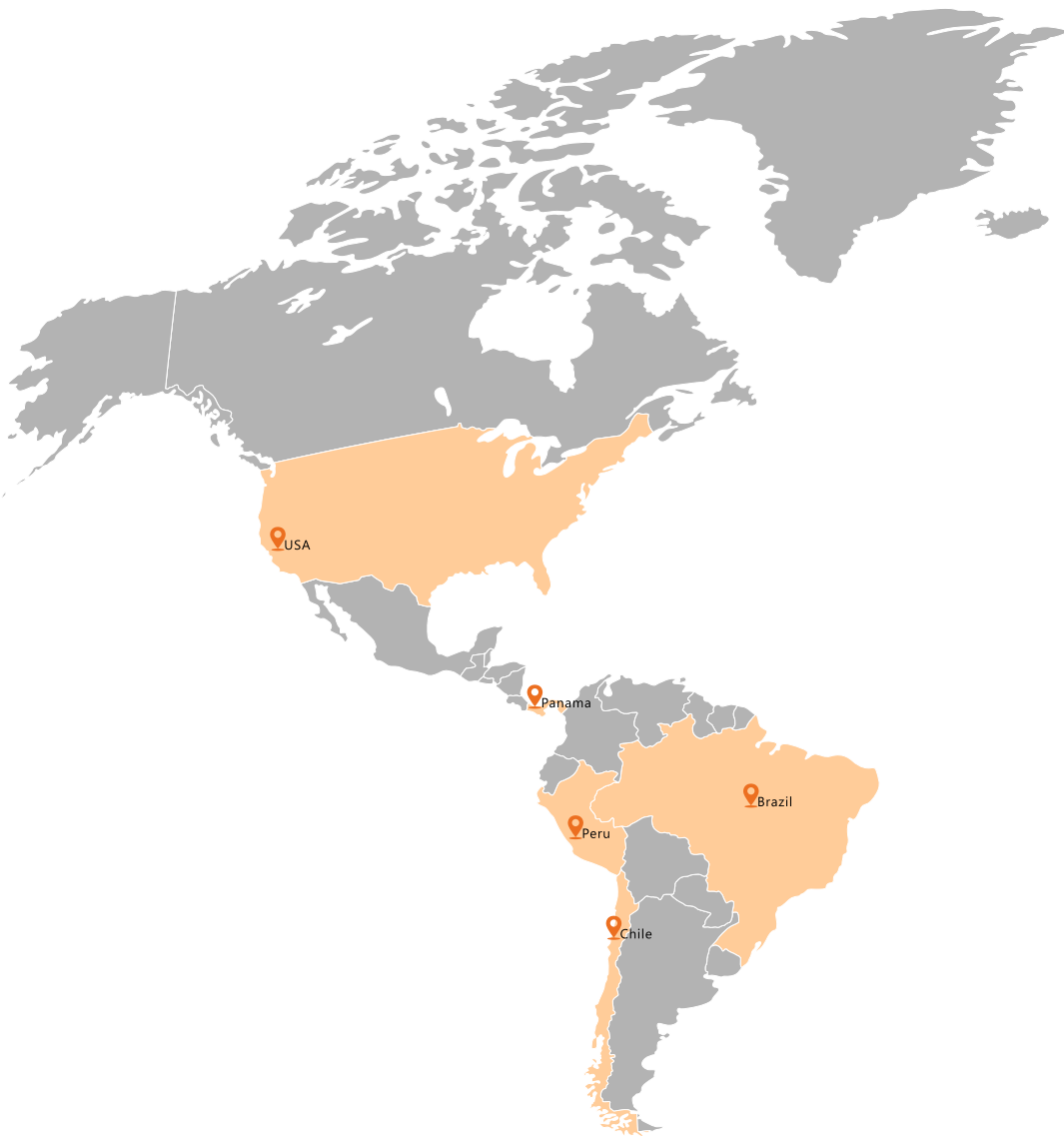
135000+m²
Office and Factory Area

17+
Years of Experience
Founded in 2007

86+
Patents Awarded

2000+
Professional
Teammates

100+
Countries and
Regions Markets



Enterprise Development

2007
Felicity Solar China Head Quater was founded.

2009
We started manufacturing battery, solar street light and solar charge controller, inverter.

2014
We officially established the R&D team and began to independently develop inverter. In the same year, 3 Felicity Solar showroom were opened in Guangzhou.

2016
We started to explore the African market. Setting up the first subsidiary in Nigeria symbolizes the first step of the "Going Out" strategy.

2019
Established 4 more branches in Africa.

2021
We began to head into the Middle East and Central America market, with 7 branches newly built. Battery packs and new generation of inverters have also become our popular products in these years.

2022
Established 9 branches all over the world.

2023
Built 47300+m² New large smart photovoltaic industrial zone. We have more than 400 members.

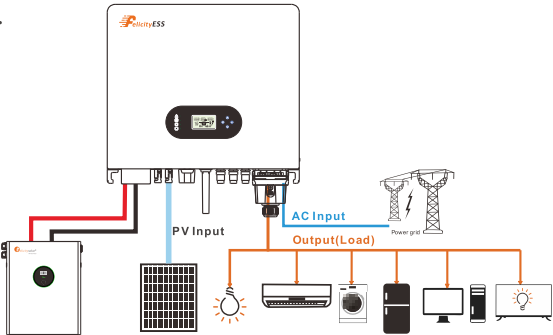
2024
Established 3 branches in South America and Europe. For more glorious achievements in Felicity Solar, please stay tuned...

HYBRID SOLAR INVERTER

T-REX-5KLP1G01



FEATURES

- Power supply can be switched automatically and switching time within 20ms.
 - 48V low voltage battery, transformer isolation topology.
 - Support storing energy from diesel generator.
 - Max.charging/discharging current of 100A.
 - AC couple to retrofit existing solar system.
 - Support WiFi for mobile monitoring.
- 

PRODUCT PARAMETERS

Model	T-REX-5KLP1G01
Battery Input Data	
Battery Voltage Range	40V~60V
Max. charging and discharging current	100A/100A
Max. charging and discharging power	5000W
Battery type	Li/Lead-acid
DC Input Data(PV side)	
Max. recommended PV power	6500W
Max. PV voltage	550V
Start voltage	130V
PV voltage range	90V-550V
MPPT voltage range	100V-500V
MPPT Voltage Range for Full Load	220V-500V
Nominal voltage	360V
Max. input current	15A/15A
Max. shorted current	18A/18A
Number of MPP trackers / strings per MPP tracker	2/1
Grid Data	
Nominal Input Voltage	230Vac
Input Voltage Range	184-264.5Vac*
Nominal grid frequency	50/60Hz
Max. input current	40A
Max. Charge Current	100A
Max. AC output power	5000W
AC Output Rated Current	21.7A
Max. output current	25A
Max. Continuous AC Passthrough	30A
Power Factor	>0.99
Displacement power factor	0.8 leading...0.8 lagging
THDI	< 3 %
AC Output Data(Back Up)	
Rated output power	5000VA/5000W
Max. Output current	30A
Rated AC output voltage	230Vac
Rated AC output frequency	50/60Hz
Efficiency	
Max. efficiency	97.6%
Euro efficiency	97.0%
MPPT efficiency	99.9%
Protection	
Output over current protection	Integrated
Output over power protection	Integrated
Output shorted protection	Integrated
Anti-islanding protection	Integrated
GFCI Protection	Integrated
Insulation Resistor Detection	Integrated
General Data	
Operating Temperature Range	-25°C~60°C, >45°C Derating
Ingress Protection	IP65
Relative Humidity	100 %
Cooling Concept	Nature
Altitude	2000m
Communication	RS232/RS485
BMS Communication	CAN/RS485
Monitor Module	Wi-Fi/GPRS
Display	LCD+LED
Installation Style	Wall-mounted
Warranty	10 years
Grid Regulation	VDE-AR-N 4105; G99/1; EN50549-1; CEI -21; AS 4777.2; NRS 097-2-1;
Safety Regulation	IEC 62109-1/2IEC 62040-1
EMC	EN61000-6-1.EN61000-6-3
Net Weight(KG)	32.4KG
Gross Weight(KG)	39.1KG
Product Dimension(MM)	528*493*229MM
Package Dimension(MM)	632*585*315MM

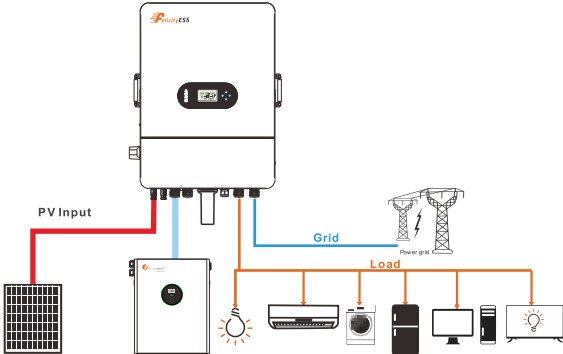
*According to local grid-connected standards

HYBRID SOLAR INVERTER

T-REX-10KLP3G01



FEATURES

- Power supply can be switched automatically and switching time within 20ms.
 - Max.charging/discharging current of 200A.
 - Support storing energy from diesel generator.
 - AC couple to retrofit existing solar system.
 - Support WiFi for mobile monitoring.
- 

PRODUCT PARAMETERS

Model	T-REX-10KLP3G01
Battery Input Data	
Battery Voltage Range	40V~60V
Max. charging and discharging current	200A/200A
Max. charging and discharging power	10000W
Battery type	Li/Lead-acid
DC Input Data(PV side)	
Max. recommended PV power	13000W
Max. PV voltage	900V
Start voltage	180V
PV voltage range	160V~900V
MPPT voltage range	200V~850V
MPPT Voltage Range for Full Load	450V~850V
Nominal voltage	720V
Max. input current	15A/15A
Max. shorted curent	18A/18A
Number of MPP trackers / strings per MPP tracker	2/1
Grid Data	
Nominal Input Voltage	L1/L2/L3/N/PE,230/400Vac
Input Voltage Range	184V-264.5Vac*
Nominal grid frequency	50/60Hz*
Max. input current	30A
Max. Charge Current	200A
Max. AC output power	10000W
AC Output Rated Current	14.5A
Max. output current	18A
Max. Continuous AC Passthrough	30A
Power Factor	>0.99
Displacement power factor	0.8 leading...0.8 lagging
THDI	< 3%
AC Output Data(Back Up)	
Rated output power	10000VA/10000W
Max. Output current	30A
Rated AC output voltage	L1/L2/L3/N/PE,230/400Vac
Rated AC output frequency	50/60Hz
Efficiency	
Max. efficiency	97.6%
Euro efficiency	97.0%
MPPT efficiency	99.9%
Protection	
Output over current protection	Integrated
Output over power protection	Integrated
Output shorted protection	Integrated
Anti-islanding protection	Integrated
GFCI Protection	Integrated
Insulation Resistor Detection	Integrated
General Data	
Operating Temperature Range	-25°C~60°C, >45°C Derating
Ingress Protection	IP65
Relative Humidity	100%
Cooling Concept	Smart cooling
Altitude	2000m
Communication	RS232/RS485
BMS Communication	CAN/RS485
Monitor Module	Wi-Fi/GPRS
Display	LCD+LED
Installation Style	Wall-mounted
Warranty	10 years
Grid Regulation	VDE-AR-N 4105; G99/1; EN50549-1; CEI -21; AS 4777.2; NRS 097-2-1;
Safety Regulation	IEC 62109-1/2IEC 62040-1
EMC	EN61000-6-1.EN61000-6-3
Net Weight(KG)	38.9KG
Gross Weight(KG)	47.1KG
Product Dimension(MM)	655*475*266MM
Package Dimension(MM)	792*597*351MM

*According to local grid-connected standards

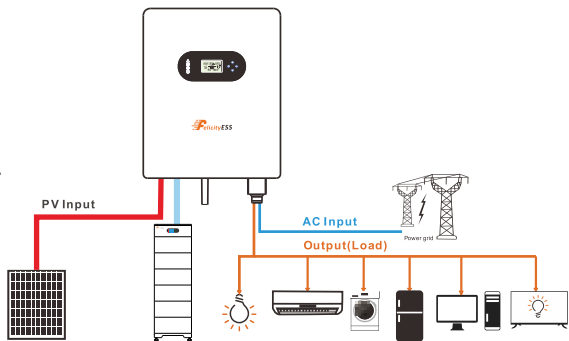
HYBRID SOLAR INVERTER

T-REX-10KHP3G01



FEATURES

- Power supply can be switched automatically and switching time within 20ms.
- Support storing energy from diesel generator.
- Max.charging/discharging current of 25A.
- AC couple to retrofit existing solar system.
- Support WiFi for mobile monitoring.



PRODUCT PARAMETERS

Model	T-REX-10KHP3G01
Battery Input Data	
Battery Voltage Range	180V~580V
Max. charging and discharging current	25A
Max. charging and discharging power	10000W
Battery type	Li/Lead-acid
DC Input Data(PV side)	
Max. recommended PV power	13000W
Max. PV voltage	900V
Start voltage	160V
PV voltage range	160V~900V
MPPT voltage range	200V~850V
MPPT Voltage Range for Full Load	450V~850V
Nominal voltage	720V
Max. input current	15A/15A
Max. shorted curent	18A/18A
Number of MPP trackers / strings per MPP tracker	2/1
Grid Data	
Nominal Input Voltage	L1/L2/L3/N/PE,230/400Vac
Input Voltage Range	184V-264.5V per phase*
Nominal grid frequency	50/60Hz*
Max. input current	30A
Max. Charge Current	25A
Max. AC output power	10000W
AC Output Rated Current	14.5A
Max. output current	18A
Max. Continuous AC Passthrough	30A
Power Factor	>0.99
Displacement power factor	0.8 leading...0.8 lagging
THDI	< 3%
AC Output Data(Back Up)	
Rated output power	10000VA/10000W
Max. Output current	30A
Rated AC output voltage	L1/L2/L3/N/PE, 230/400Vac
Rated AC output frequency	50/60Hz
Efficiency	
Max. efficiency	97.6%
Euro efficiency	97.0%
MPPT efficiency	99.9%
Protection	
Output over current protection	Integrated
Output over power protection	Integrated
Output shorted protection	Integrated
Anti-islanding protection	Integrated
GFCI Protection	Integrated
Insulation Resistor Detection	Integrated
General Data	
Operating Temperature Range	-25°C~60°C, >45°C Derating
Ingress Protection	IP65
Relative Humidity	100%
Cooling Concept	Nature
Altitude	2000m
Communication	RS232/RS485
BMS Communication	CAN/RS485
Monitor Module	Wi-Fi/GPRS
Display	LCD+LED
Installation Style	Wall-mounted
Warranty	5 years
Grid Regulation	VDE-AR-N 4105; G99/1; EN50549-1; CEI -21; AS 4777.2; NRS 097-2-1;
Safety Regulation	IEC 62109-1/2IEC 62040-1
EMC	EN61000-6-1.EN61000-6-3
Net Weight(KG)	35.3KG
Gross Weight(KG)	39.7KG
Product Dimension(MM)	533*431*213MM
Package Dimension(MM)	635*533*315MM

*According to local grid-connected standards

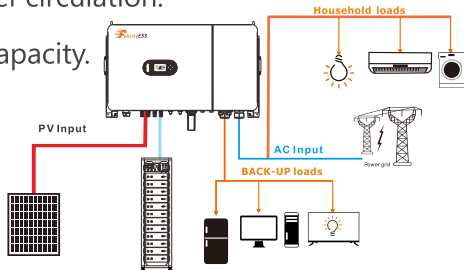
HYBRID SOLAR INVERTER

T-REX-50KHP3G01



FEATURES

- Support multi working mode,time of use,Selling first, zero export to load,zero export to CT, dispatch mode.
- The off-grid switching time is less than 10ms to prevent important loads from losing power.
- Wide battery voltage input, each battery charge and discharge current up to 50A.
- Programmable generator port, support smart load and microinverter access.
- Supporting WIFI monitoring and Fsolar Smart Cloud Monitoring System.
- 2 independent battery inputs, effectively reducing inter-cluster circulation.
- 8-channel PV, 4-channel MPPT, 1.3 times overconfiguration capacity.
- Configurable parameters and working mode by LCD
- The maximum support is 12 parallel machines.
- IP65 protection level.



PRODUCT PARAMETERS

Model	T-REX-50KHP3G01
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 Input Power	65 kW
Max. DC Input Voltage	1000Vd.c.
Min. DC Input Voltage	150Vd.c.
Start-up Voltage	250Vd.c.
Rated DC Input Voltage	600Vd.c.
MPPT Range	200~850Vd.c.
Full Load DC Voltage Range	450~850Vd.c.
PV Input Current	36+36+36+36(A)
Max. PV Isc	55+55+55+55(A)
No.of MPP Trackers	4
No.of Strings per MPP Tracker	2
AC Output Data	
Rated AC Output Power	50 kW
Max. AC Output Power	55 kW
AC Output Rated Current	72.5 A
Max. AC Current	79.7 A
Rated AC Voltage	220/380,230/400 Vac (-20%~+15%)
AC Wiring Mode	3W+N+PE/3W+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)
Efficiency	
Max. efficiency	97.6%
Euro efficiency	97.0%
MPPT efficiency	99.9%
Protection	
PV Input Lightning Protection	Integrated
PV String Input Reverse Polarity Protection	
Battery Input Lightning Protection	
Battery Input Reverse Polarity Protection	
Insulation Resistor Detection	
Residual Current Monitoring Unit	
Output Over Current Protection	
Output Shorted Protection	
Output Over Voltage Protection	
Anti-islanding Protection	
AC Output Lightning Protection	
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	
Size (W* H* D)	940*595*340mm
Protection Degree	IP65
Operating Temperature Range	-25 to 60 °C (> 50 °C derating)
Humidity	0 ~ 95 % (No condensation)
Cooling	Smart cooling
Altitude	3000 m (> 2000 m derating)
Communication with BMS	RS485,CAN
Monitor module	WiFi/GPRS
Installation Style	Wall-mounted
Warranty[1]	10 years

[1]Conditions apply, refer to FelicityESS Warranty Letter.
*According to local grid-connected standards

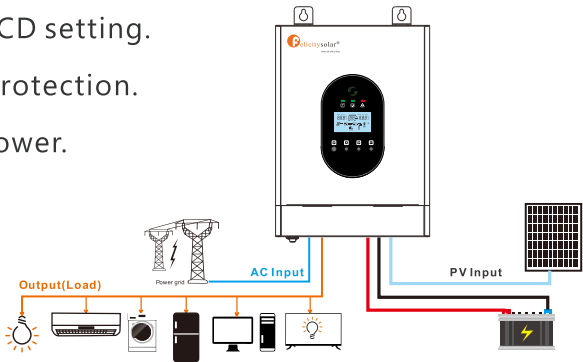
SOLAR INVERTER

IVCM1012/2024/3024



FEATURES

- Depending on the model, Turbo mode can be enabled in APL mode to use up to three times the maximum rated load.
- Configurable input voltage range for home appliances and personal computers via LCD setting.
- Configurable battery charging current based on applications via LCD setting.
- Configurable AC/Solar Charger priority via LCD setting.
- Overload / Over temperature/ short circuit protection.
- Compatible to mains voltage or generator power.
- Built-in MPPT solar charge controller.
- Auto restart while AC is recovering.
- Cold start function.



PRODUCT PARAMETERS










Model	IVCM1012	IVCM2024	IVCM3024
Line Mode Specifications			
Rated Output Power(VA/W)	1000VA/1000W	2000VA/2000W	3000VA/3000W
Instant Output Power(W)	2000VA	4000VA	6000VA
Nominal DC Input Voltage	12V	24V	24V
Input Voltage Wave form	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		
Max. AC Input Voltage	300Vac		
Nominal Input Frequency	50Hz/ 60Hz(Auto detection)		
Low Line Frequency Disconnect	40±1Hz		
Low Line Frequency Re-connect	42±1Hz		
High Line Frequency Disconnect	65±1Hz		
High Line Frequency Re-connect	63±1Hz		
Output Voltage Waveform	As same as input waveform		
Output Short Circuit Protection	Line mode: Circuit Breaker Battery mode: Electronic Circuits		
Efficiency(Line Mode)	>95% (Rated R load, battery full charged)		
Transfer Time (Single unit)	10ms typical(UPS); 20ms typical(Appliances)		
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	90-230Vac		
Nominal Output Voltage	Dependent on battery type		
Max. Charge Current	20A	20A	30A
Charge Current Regulation	10-20A (Adj 10A)	10-20A (Adj 10A)	20-30A (Adj 10A)
Over Charge Protection	Yes		
Solar Charging & Grid Charging			
Max. PV Open Circuit Voltage	95V	95V	145V
Operating Voltage Range	15-80V	30-80V	30-125V
Max.Input Power	750W	1500W	1500W
Max.Solar Charging Current	60A		
Max.Charging Current(PV+Grid)	80A	80A	90A
Max.Input Current	35A		
Inverter Mode Specifications			
Rated Output Power(VA)	1000VA/1000W	2000VA/2000W	3000VA/3000W
Instant Output Power	2000VA	4000VA	6000VA
Nominal DC Input Voltage	12V	24V	24V
Output Voltage Waveform	Pure sine wave		
Nominal Output Voltage	230Vac±5%		
Nominal Output Frequency(Hz)	50±0.3Hz/60Hz±0.3Hz(Adjustable)		
Peak Efficiency	93%		
Over-Load Protection (SMPS load)	5s@ ≥ 150% load; 10s @ 110% ~ 150% load		
Turbo Max Power	3000W	4000W	4500W
General Specifications			
Operating Temperature	-10°C~55°C		
Range Storage Temperature	-15°C~60°C		
Net Weight(KG)	5KG	6KG	7.6KG
Product Dimension(MM)	328*232*107MM	340*248*107MM	410*358*180MM
Package Dimension(MM)	422*314*182MM	422*330*181MM	422*370*198MM

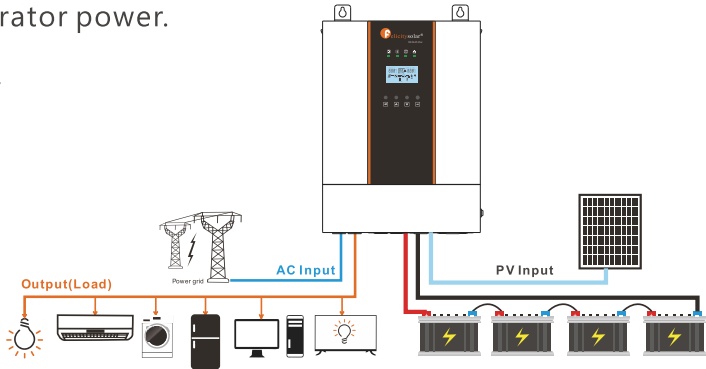
SOLAR INVERTER


IVEM3024/5048




FEATURES

-  Configurable input voltage range for home appliances and personal computers via LCD setting.
-  Configurable battery charging current based on applications via LCD setting.
-  Configurable AC/Solar Charger priority via LCD setting.
-  Compatible to mains voltage or generator power.
-  Built-in MPPT solar charge controller.
-  Auto restart while AC is recovering.
-  Lithium battery activation function.
-  Inverter running without battery.
-  Cold start function.






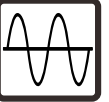
CHARGING PROTECTION




SUPPORT A VARIETY OF BATTERIES




MAX 12 PCS IN PARALLEL FOR 5KVA




PURE SINE WAVE INVERTER




OVERLOAD PROTECTION




WORKING WITHOUT BATTERY




LOW NOISE



MAX PV VOLTAGE



OVER TEMPERATURE PROTECTION



SHORT CIRCUIT PROTECTION

PRODUCT PARAMETERS

Model	IVEM3024	IVEM5048
Line Mode Specifications		
Rated Output Power(VA)	3000VA	5000VA
Rated Output Power(W)	3000W	5000W
Nominal DC Input Voltage	24V	48V
Nominal Input Voltage	230Vac	
Max. AC Input Voltage	280Vac	
Nominal Input Frequency	50Hz / 60Hz (Auto detection)	
Efficiency(Line Mode)	> 95% (Rated R load, battery full charged)	
Pass Through Without Battery	Yes	
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	6000W
Max. Solar Charging Current	100A	100A
Max. Charging Current(PV+Grid)	100A	100A
Max. Input Current	15A	20A
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	Yes, up to 12 units
Peak Efficiency	93%	
Over-Load Protection(SMPS load)	5.5s@≥150% load; 10.5s @105% ~150% load	
Surge Rating	2* rated power for 5s	
Capable of Starting Electric	Yes	
Output Short Circuit Protection	Yes	
General Specifications		
Operating Temperature	0°C~55°C	
Range Storage Temperature	-15°C~60°C	
Net Weight(KG)	10.8KG	13.2KG
Product Dimension(MM)	395*295*129MM	415*320*129MM
Package Dimension(MM)	472*372*202MM	494*399*202MM

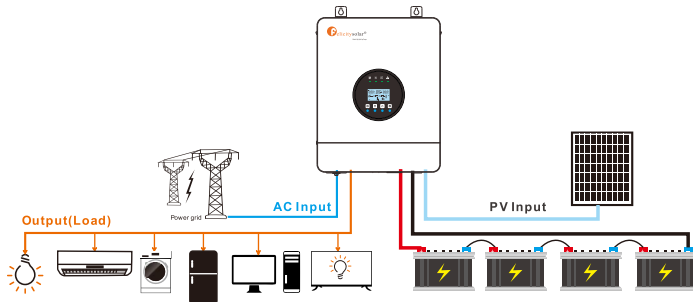
SOLAR INVERTER


IVEM6048




FEATURES

- Parallel connection quantity up to 12 units for 6KVA model (Battery must be connected)
- Configurable battery charging current based on applications via LCD setting.
- Configurable AC/Solar Charger priority via LCD setting.
- Compatible to mains voltage or generator power.
- Built-in MPPT solar charge controller.
- Lithium battery activation function.
- Auto restart while AC is recovering.
- Inverter running without battery.
- Cold start function.






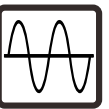
CHARGING PROTECTION




SUPPORT A VARIETY OF BATTERIES




MAX 12 PCS IN PARALLEL




PURE SINE WAVE INVERTER




OVERLOAD PROTECTION




WORKING WITHOUT BATTERY




LOW NOISE



MAX PV VOLTAGE



OVER TEMPERATURE PROTECTION



SHORT CIRCUIT PROTECTION

PRODUCT PARAMETERS







Model	IVEM6048
Line Mode Specifications	
Rated Output Power(VA)	6000VA
Rated Output Power(W)	6000W
Nominal DC Input Voltage	48V
Nominal Input Voltage	230Vac
Max. AC Input Voltage	280Vac
Nominal Input Frequency	50Hz / 60Hz (Auto detection)
Efficiency(Line Mode)	>95% (Rated R load, battery full charged)
Pass Through Without Battery	Yes
Utility Charge Mode Specifications	
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	90V-450V
Max. Input Power	7000W
Max. Solar Charging Current	120A
Max. Charging Current(PV+Grid)	120A
Max. Input Current	27A
Min. Startup Voltage	95V
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	Yes, up to 12 units
Peak Efficiency	93%
Over-Load Protection(SMPS load)	5s@ ≥ 150% load; 10s @105% ~150% load
Surge Rating	2* rated power for 5s
Capable of Starting Electric	Yes
Output Short Circuit Protection	Yes
General Specifications	
Operating Temperature	-10°C~50°C
Range Storage Temperature	-15°C~60°C
Net Weight(KG)	11.5KG
Product Dimension(MM)	420*335*142MM
Package Dimension(MM)	512*417*216MM

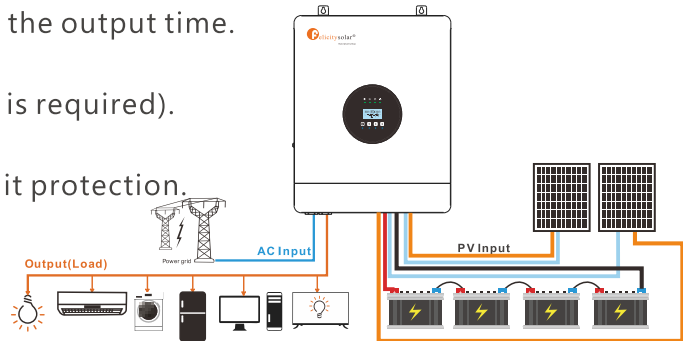
SOLAR INVERTER


IVEM8048




FEATURES

-  Parallel connection quantity up to 6 units (Battery must be connected)
-  Built-in MPPT solar charge controller (Supports 2 strings of solar input).
-  The second path of the AC output can set the output time.
-  Built-in Wi-Fi for mobile monitoring(APP is required).
-  Overload / Over temperature/ short circuit protection.
-  Lithium battery activation function.






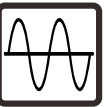
CHARGING PROTECTION




SUPPORT A VARIETY OF BATTERIES




MAX 6 PCS IN PARALLEL




PURE SINE WAVE INVERTER




OVERLOAD PROTECTION




WORKING WITHOUT BATTERY




LOW NOISE



MAX PV VOLTAGE



OVER TEMPERATURE PROTECTION



SHORT CIRCUIT PROTECTION

PRODUCT PARAMETERS







Model	IVEM8048
Line Mode Specifications	
Rated Output Power(VA)	8000VA
Rated Output Power(W)	8000W
Nominal DC Input Voltage	48V
Nominal Input Voltage	230Vac
Max. AC Input Voltage	280Vac
Nominal Input Frequency	50Hz / 60Hz (Auto detection)
Efficiency(Line Mode)	> 95% (Rated R load, battery full charged)
Pass Through Without Battery	Yes
Utility Charge Mode Specifications	
Input Voltage Range	230Vac
Over Charge Protection	90-280Vac
Max. Charge Current	150A
Over Charge Protection	Yes
Solar Charging & Grid Charging	
Max.PV Open Circuit Voltage	500V
PV Voltage Working Range	90V-450V
Max. Input Power	10000W(5000W for single PV)
Max. Solar Charging Current	150A
Max. Charging Current(PV+Grid)	150A
Max. Input Current	20A X 2(MAX 40A)
Min. Startup Voltage	100V
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	Yes,up to 6 units
Peak Efficiency	94.5%
Over-Load Protection(SMPS load)	5s@≥150% load; 10s @ 105% ~150% load
Surge Rating	2* rated power for 5s
Capable of Starting Electric	Yes
Output Short Circuit Protection	Yes
General Specifications	
Operating Temperature	-10°C~50°C
Range Storage Temperature	-15°C~60°C
Net Weight(KG)	23.7KG
Gross Weight(KG)	27.4KG
Product Dimension(MM)	607*406*141MM
Package Dimension(MM)	712*582*259MM

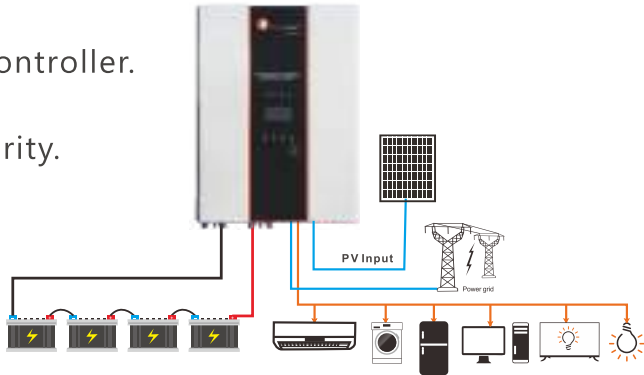
SOLAR INVERTER

IVPM10048



FEATURES

-  Bypass charging function, AC charge available When the unit off.
-  Grid electricity and battery power priority is optional.
-  Communicate with Felicity MPPT charge controller.
-  Intelligent protection, higher class of security.
-  Higher charging current and adjustable.
-  90-280V AC Wide input voltage.



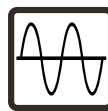
CHARGING
PROTECTION



SUPPORT A
VARIETY OF BATTERIES



MAX 6 PCS
IN PARALLEL



PURE SINE
WAVE INVERTER



BUILT-IN MPPT

PRODUCT PARAMETERS

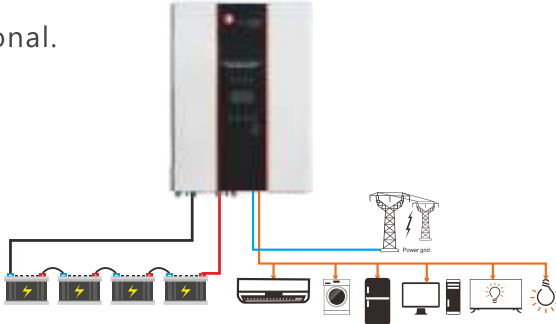
Model	IVPM10048
Line Mode Specifications	
Rated Output Power(VA)	10000VA
Rated Output Power(W)	8000W
Nominal DC Input Voltage	48V
Nominal Input Voltage	230Vac
Max. AC Input Voltage	280Vrms
Nominal Input Frequency	50Hz / 60Hz
Efficiency(Line Mode)	≥95% (Rated R load, battery full charged)
Pass Through Without Battery	No
Max. Bypass Overload Current	AC 63A
Utility Charge Mode Specifications	
Nominal Input Voltage	220Vac
Input Voltage Range	90~280Vac
Nominal Output Voltage	Dependent on battery type
Max. Charge Current	80A
Charge Current Regulation	0-80A
Battery Initial Voltagen	Circuit breaker
Charger Short Circuit	AC 63A
Breaker Size	Dependent on battery type or Self-defined
Over Charge Protection	Yes
Solar Charging & Utility Charging(MPPT bulit-in controller is optional)	
Max. PV Open Circuit Voltage	195Vdc
PV Voltage Working Range	60~195Vdc
Max. Input Power	6600W
Max. Solar Charging Current	120A
Max. Charging current(Utility + Solar)	200A
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
General Specifications	
Operating Temperature	0°C~40°C
Range Storage Temperature	-15°C~60°C
Net Weight(KG)	58.5KG
Gross Weight(KG)	70.6KG
Product Dimension(MM)	615*420*195MM
Package Dimension(MM)	690*480*335MM

SOLAR INVERTER

IVPS1512~10048



FEATURES

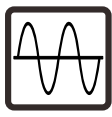
- Comprehensive scientific management of electric charging and solar charging, will soon get rid of MPPT exchange.
 - Comprehensively upgraded safety protection design, industry-leading transformer over- temperature protection.
 - Intelligently fine-tune the over-discharge voltage according to the load power.
 - Grid electricity and battery power priority is optional.
 - 90-280V Wide range of AC input voltage.
 - Bypass charging function.
 - 50/60HZ compatible.
- 



CHARGING
PROTECTION



SUPPORT A
VARIETY OF BATTERIES



PURE SINE
WAVE INVERTER

PRODUCT PARAMETERS

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)					
Teriminal connection	220Vac					
Nominal Input Voltage	170±7Vac(UPS) 90±7Vac(APL)					
Low Line Disconnect	180±7Vac(UPS) 100±7Vac(APL)					
Low Line Re-connectAC Input Range	280±7Vac					
High Line Disconnect	280±7Vac					
High Line Re-connect	270±7Vac					
Max. AC Input Voltage	280Vrms					
Nominal Input Frequency	50Hz/60Hz					
Output Voltage Waveform	As same as input waveform					
Efficiency(Line mode)	≥95%(Rated R load, and battery is fully charged)					
Pass Through Without Battery	No					
Max. Bypass Overload Current	AC 30A			AC 63A		
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-50A	0A-80A
Battery Initial Voltagen	Circuit breaker					
Charger Short Circuit	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	21.0KG	26.0KG	29.1KG	29.1KG	55.8KG
Gross Weight(KG)	11.2KG	24.1KG	28.8KG	32.5KG	32.5KG	67.7KG
Product Dimension(MM)	354*238*145MM	472*291*195MM		525*420*195MM		615*420*195MM
Package Dimension(MM)	440*312*246MM	552*508*290MM		607*540*290MM		690*480*335MM






LiFePO4 BATTERY SYSTEM

LPBF24100-M



FEATURES

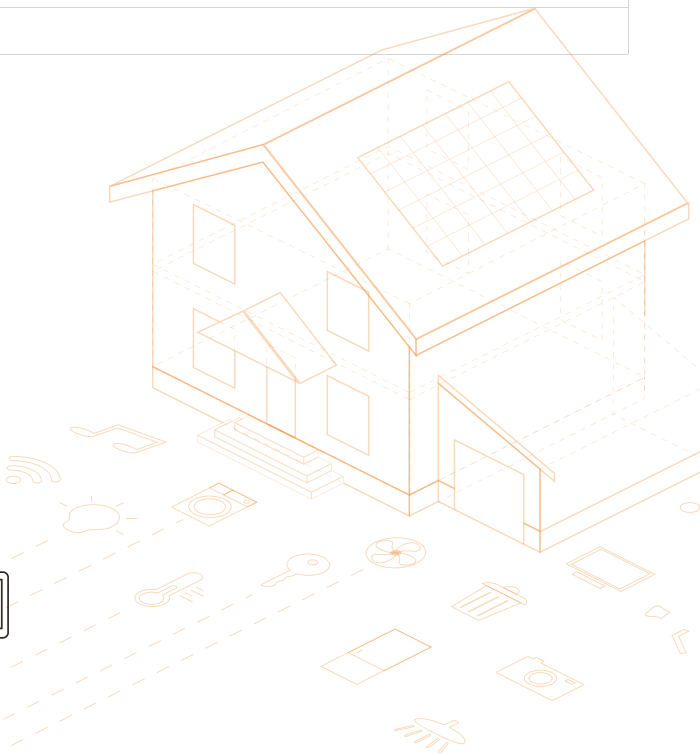


-  Wall mounted, more space saving.
-  Super long warranty: 5 years warranty.
-  Higher energy density, smaller volume.
-  High class of safety with built-in BMS protection.
-  Support 6 pcs connected in parallel mode for expansion.

PRODUCT PARAMETERS

Model	LPBF24100-M
Usable Capacity	2.5Kwh
Battery Type	LiFePO4
Nominal Voltage	25.6V
Operating Voltage	24-28.8V
Recommend Charge/Discharge Current[1]	≤60A
Recommend Charge/Discharge Power[1]	≤1500W
Maximum Charge/Discharge Current(15s)	100A
Maximum Charge/Discharge Power(15s)	2500W
Depth of Discharge(DOD)	≥95%
Scalability	Up to 6 units in parallel(15kWh)
Communication	CAN&RS485
Ingress Protection	IP21
Cycle Life[2]	≥ 6000 Cycles
Charging Temperature Range	0~55℃
Discharging Temperature Range	-20~60℃
Display	LCD+LED
Installation	Wall-Mounted / Floor-Mounted
Protection	Built-in smart BMS, Breaker, Fuse
Warranty	5 Years
Net Weight(KG)	22KG
Gross Weight(KG)	26KG
Product Dimension(MM)	345*430*195MM
Package Dimension(MM)	437*527*243MM
[1] Recommend charge/discharge current/power is affected by temperature and SOC.	
[2] Test conditions: 0.2C Charging/Discharging @25℃,80% DOD	

Convenient CAN&RS485 Communication









LiFePO4 BATTERY SYSTEM

LPBF24200-M /48150-P



FEATURES



-  Super long warranty: 5 years warranty.
-  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.
-  Support 6 pcs connected in parallel mode for expansion.

PRODUCT PERSPECTIVE



LPBF24200-M



LPBF48150-P

PRODUCT PARAMETERS

Model	LPBF24200-M	LPBF48150-P
Usable Capacity	5Kwh	7.2Kwh
Nominal Voltage	25.6V	51.2V
Voltage Range	24-28.8V	48-57.6V
MAX. Charge & Discharge Current	120A @15S	120A @15S
Recommend Charge&Discharge Current	≤80A	≤60A
MAX. Output Power	3000W	6000W
Recommend Output Power	2000W	3000W
DOD	≥95%	
Scalability	Up to 6 units in parallel	
Communication	CAN&RS485	
Ingress Protection	IP21	
Cycle Life	≥6000@25°C 80% DOD	
Working Temperature Range	Discharge: -20°C to + 60°C, Charge: +0°C to + 55°C	
Net Weight(KG)	39KG	56KG
Gross Weight(KG)	44KG	70.2KG
Product Dimension(MM)	450*415*213MM	655*430*205MM
Package Dimension(MM)	537*537*298MM	760*525*360MM

Convenient CAN&RS485 Communication









LiFePO4 BATTERY SYSTEM

LPBF48100-M /48200-H



FEATURES



-  Long Warranty: 5 Years
-  High Scalability: Up to 6 units in parallel
-  LiFePO4: Higher safe performance and longer cycle life.
-  Multiple Protection: Built-in smart BMS and Fuse.
-  Flexible Installation: Wall-Mounted or Floor-Mounted.
-  Wide Compatibility: Compatible with leading inverter brands.

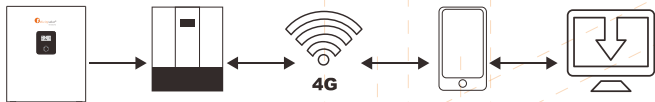
PRODUCT PERSPECTIVE



PRODUCT PARAMETERS

Model	LPBF48100-M	LPBF48200-H
Usable Capacity	5Kwh	10Kwh
Nominal Voltage	51.2V	51.2V
Voltage Range	48-57.6V	48-57.6V
MAX. Charge & Discharge Current	100A @15S	120A @15S
Recommend Charge&Discharge Current	≤50A	≤80A
MAX. Output Power	5000W	6000W
Recommend Output Power	2500W	4000W
DOD	≥95%	
Scalability	Up to 6 units in parallel	
Communication	CAN&RS485	
Ingress Protection	IP21	
Cycle Life	≥6000@25°C80% DOD	
Working Temperature Range	Discharge: -20°C to + 60°C, Charge: +0°C to + 55°C	
Net Weight(KG)	40KG	75KG
Gross Weight(KG)	45KG	88KG
Product Dimension(MM)	630*540*260MM	685*475*213MM
Package Dimension(MM)	642*552*278MM	780*570*375MM

Convenient CAN&RS485 Communication









LiFePO4 BATTERY SYSTEM

LPBF48300



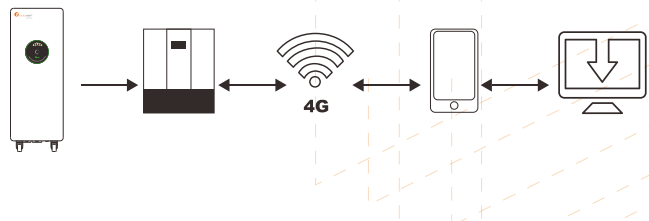
FEATURES

-  Super long warranty: 5 years warranty.
-  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.
-  Support 6 pcs connected in parallel mode for expansion.

PRODUCT PARAMETERS

Model	LPBF48300
Usable Capacity	15Kwh
Battery Type	LiFePO4
Nominal Voltage	51.2V
Operating Voltage	48-57.6V
Recommend Charge/Discharge Current[1]	≤120A
Recommend Charge/Discharge Power[1]	≤6000W
Maximum Charge/Discharge Current(15s)	200A
Maximum Charge/Discharge Power(15s)	10000W
Depth of Discharge(DOD)	≥95%
Scalability	Up to 6 units in parallel
Communication	CAN&RS485
Ingress Protection	IP21
Cycle Life[2]	≥ 6000 Cycles@25°C, 80% DOD
Charging Temperature Range	0~55°C
Discharging Temperature Range	-20~60°C
Display	LED
Installation	Floor-Mounted
Protection	Built-in smart BMS, Breaker, Fuse
Warranty	5 Years
Net Weight(KG)	154KG
Gross Weight(KG)	177KG
Product Dimension(MM)	615*350*955MM
Package Dimension(MM)	718*450*1112MM
[1] Recommend charge/discharge current/power is affected by temperature and SOC.	
[2] Test conditions: 0.2C Charging/Discharging @25°C,80% DOD	

Convenient CAN&RS485 Communication









LiFePO4 BATTERY SYSTEM

LPBF48350



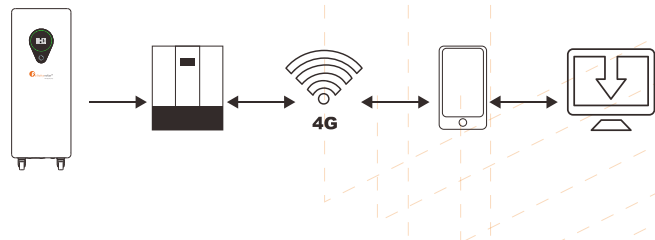
FEATURES

-  Super long warranty: 5 years warranty.
-  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.
-  Support 6 pcs connected in parallel mode for expansion.

PRODUCT PARAMETERS

Model	LPBF48350
Usable Capacity	17.5Kwh
Battery Type	LiFePO4
Nominal Voltage	51.2V
Operating Voltage	48-57.6V
Recommend Charge/Discharge Current[1]	≤200A
Recommend Charge/Discharge Power[1]	≤10000W
Maximum Charge/Discharge Current(15s)	250A
Maximum Charge/Discharge Power(15s)	12500W
Depth of Discharge(DOD)	≥95%
Scalability	Up to 6 units in parallel(105kWh)
Communication	CAN&RS485
Ingress Protection	IP21
Cycle Life[2]	≥ 6000 Cycles@25°C,80% DOD
Charging Temperature Range	0~55°C
Discharging Temperature Range	-20~60°C
Display	LCD+LED
Installation	Floor-Mounted
Protection	Built-in smart BMS, Breaker, Fuse
Warranty	5 Years
Net Weight(KG)	162KG
Gross Weight(KG)	185KG
Product Dimension(MM)	622*350*955MM
Package Dimension(MM)	718*450*1112MM
[1] Recommend charge/discharge current/power is affected by temperature and SOC.	
[2] Test conditions: 0.2C Charging/Discharging @25°C,80% DOD	

Convenient CAN&RS485 Communication









LiFePO4 BATTERY SYSTEM

LPBA48200-II



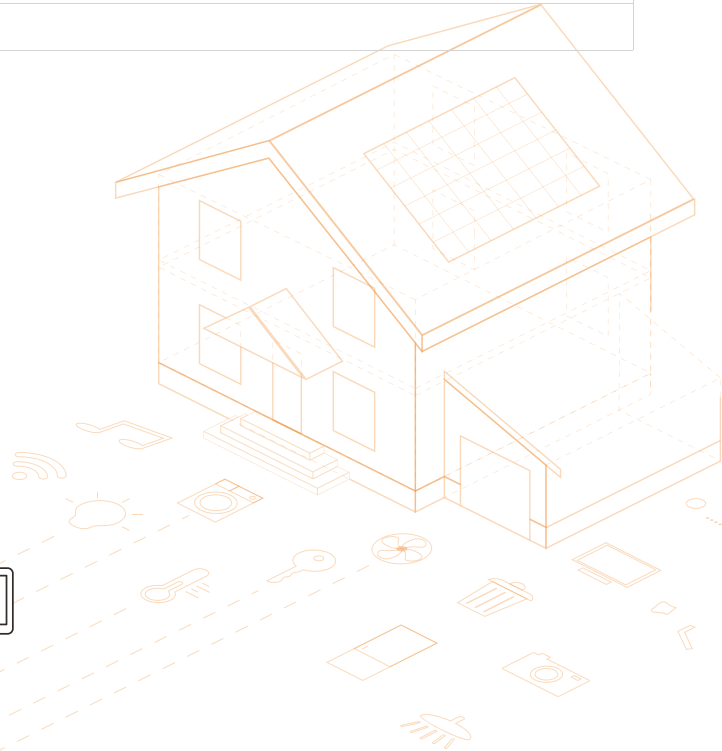
FEATURES

-  Super long warranty: 7 years warranty.
-  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.
-  Support 12 pcs connected in parallel mode for expansion.

PRODUCT PARAMETERS

Model	LPBA48200-II
Usable Capacity	10Kwh
Battery Type	LiFePO4
Nominal Voltage	51.2V
Operating Voltage	48-57.6V
Recommend Charge/Discharge Current[1]	≤ 120A
Recommend Charge/Discharge Power[1]	≤6000W
Maximum Charge/Discharge Current(15s)	150A
Maximum Charge/Discharge Power(15s)	7500W
Depth of Discharge(DOD)	≥95%
Scalability	Up to 12 units in parallel(120kWh)
Communication	CAN&RS485
Ingress Protection	IP21
Cycle Life[2]	≥ 6000 Cycles
Charging Temperature Range	0-55°C
Discharging Temperature Range	-20-60°C
Display	LCD+LED
Installation	Wall-Mounted / Floor-Mounted
Protection	Built-in smart BMS, Breaker, Fuse
Warranty	7 Years
Net Weight(KG)	74KG
Gross Weight(KG)	94KG
Product Dimension(MM)	755*600*160MM
Package Dimension(MM)	855*750*340MM
[1] Recommend charge/discharge current/power is affected by temperature and SOC.	
[2] Test conditions: 0.2C Charging/Discharging @25°C,80% DOD	

Convenient CAN&RS485 Communication









LiFePO4 BATTERY SYSTEM

FLA12100/12200



FEATURES



-  Long Warranty: 7 Years.
-  High Scalability: Up to 15 units in parallel.
-  Flexible Installation: Floor-Mounted.
-  LiFePO4: Higher safe performance and longer cycle life.
-  Multiple Protection: Built-in smart BMS, Fuse.
-  Wide Compatibility: Compatible with leading inverter brands.

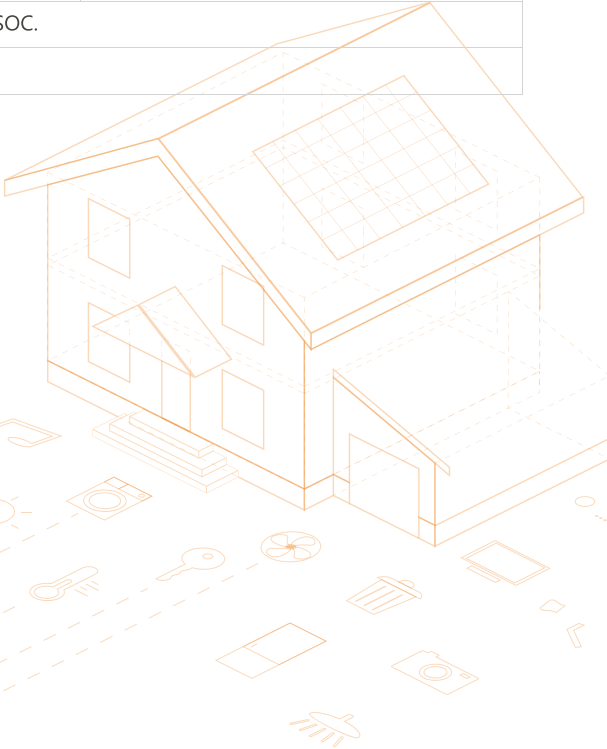
PRODUCT PARAMETERS

Model	FLA12100	FLA12200
Usable Capacity	1.28Kwh	2.56Kwh
Battery Type	LiFePO4	LiFePO4
Nominal Voltage	12.8V	12.8V
Operating Voltage	11.2-14.4V	11.2-14.4V
Recommend Charge/Discharge Current[1]	≤100A	≤120A
Recommend Charge/Discharge Power[1]	≤1250W	≤1500W
Maximum Charge/Discharge Current(15s)	150A	200A
Maximum Charge/Discharge Power(15s)	1875W	2500W
Depth of Discharge(DOD)	≥95%	
Scalability	Up to 15 units in parallel (19.2Kwh)	Up to 15 units in parallel (38.4Kwh)
Communication	CAN&RS485	
Ingress Protection	IP21	
Cycle Life[2]	≥ 6000 Cycles	
Charging Temperature Range	0~55°C	
Discharging Temperature Range	-20~55°C	
Display	LCD+LED	
Installation	Floor-Mounted	
Protection	Built-in smart BMS, Fuse	
Warranty	7 Years	
Net Weight(KG)	11KG	16KG
Gross Weight(KG)	15KG	20KG
Product Dimension(MM)	285*263*215MM	328*248*199MM
Package Dimension(MM)	447*325*273MM	391*310*257MM

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

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

Convenient CAN&RS485 Communication











LiFePO4 BATTERY SYSTEM

FLA24100/24250/24300



FEATURES



-  Long Warranty: 7 Years.
-  Built-in fire protection system.
-  High Scalability: Up to 15 units in parallel.
-  Built-in WIFI: Remote monitor of the battery pack data.
-  Flexible Installation: Wall-Mounted or Floor-Mounted.
-  LiFePO4: Higher safe performance and longer cycle life.
-  Multiple Protection: Built-in smart BMS,Breaker and Fuse.
-  Wide Compatibility: Compatible with leading inverter brands.

PRODUCT PARAMETERS

Model	FLA24100	FLA24250	FLA24300
Usable Capacity	2.56Kwh	6.25Kwh	7.5Kwh
Battery Type	LiFePO4	LiFePO4	LiFePO4
Nominal Voltage	25.6V	25.6V	25.6V
Operating Voltage	22.4-28.8V	22.4-28.8V	22.4-28.8V
Recommend Charge/Discharge Current[1]	≤100A	≤150A	≤150A
Recommend Charge/Discharge Power[1]	≤2500W	≤3750W	≤3750W
Maximum Charge/Discharge Current(15s)	150A	200A	200A
Maximum Charge/Discharge Power(15s)	3750W	5000W	5000W
Depth of Discharge(DOD)	≥95%	≥95%	≥95%
Scalability	Up to 15 units in parallel (38.4Kwh)	Up to 15 units in parallel (93.75Kwh)	Up to 15 units in parallel (112.5Kwh)
Communication	CAN&RS485		
Ingress Protection	IP21		
Cycle Life[2]	≥ 6000 Cycles		
Charging Temperature Range	0~55°C		
Discharging Temperature Range	-20~55°C		
Display	LCD+LED		
Installation	Wall-Mounted/Floor-Mounted		
Protection	Built-in smart BMS, Breaker, Fuse		
Warranty	7 Years		
Net Weight(KG)	28KG	52.5KG	74KG
Gross Weight(KG)	31KG	57KG	94KG
Product Dimension(MM)	454*400*154MM	527*400*280MM	700*440*253MM
Package Dimension(MM)	573*522*232MM	646*522*358MM	820*560*427MM

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

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

Convenient CAN&RS485 Communication



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Fsolar APP

LiFePO4 BATTERY SYSTEM

FLA48100/48200/48250



FEATURES

-  Long Warranty: 7 Years.
-  Built-in fire protection system.
-  High Scalability: Up to 15 units in parallel.
-  Built-in WIFI: Remote monitor of the battery pack data.
-  Flexible Installation: Wall-Mounted or Floor-Mounted.
-  LiFePO4: Higher safe performance and longer cycle life.
-  Multiple Protection: Built-in smart BMS,Breaker and Fuse.
-  Wide Compatibility: Compatible with leading inverter brands.

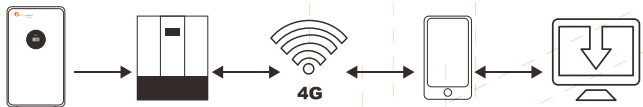
PRODUCT PARAMETERS

Model	FLA48100	FLA48200	FLA48250
Usable Capacity	5.12Kwh	10Kwh	12.5Kwh
Battery Type	LiFePO4	LiFePO4	LiFePO4
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]	≤5000W	≤6000W	≤7500W
Maximum Charge/Discharge Current(15s)	150A	150A	200A
Maximum Charge/Discharge Power(15s)	7500W	7500W	10000W
Depth of Discharge(DOD)	≥95%	≥95%	≥95%
Scalability	Up to 15 units in parallel (76.8Kwh)	Up to 15 units in parallel (150Kwh)	Up to 15 units in parallel (187.5Kwh)
Communication	CAN&RS485		
Ingress Protection	IP21		
Cycle Life[2]	≥ 6000 Cycles		
Charging Temperature Range	0~55°C		
Discharging Temperature Range	-20~55°C		
Display	LCD+LED		
Installation	Wall--Mounted/Floor-Mounted		
Protection	Built-in smart BMS, Breaker, Fuse		
Warranty	7 Years		
Net Weight(KG)	48KG	68KG	97KG
Gross Weight(KG)	55KG	88KG	118KG
Product Dimension(MM)	663*400*178MM	735*433*188MM	783*450*274MM
Package Dimension(MM)	778*522*262MM	815*552*362MM	900*570*450MM

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

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

Convenient CAN&RS485 Communication



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LiFePO4 BATTERY SYSTEM

FLA48300



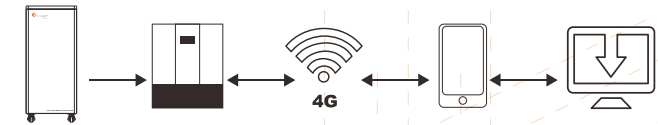
FEATURES

-  Long Warranty: 7 Years.
-  Built-in fire protection system.
-  High Scalability: Capacity up to 225Kwh.
-  Built-in WIFI: Remote monitor of the battery pack data.
-  Flexible Installation: Movable type Floor-Mounted.
-  LiFePO4: Higher safe performance and longer cycle life.
-  Multiple Protection: Built-in smart BMS, Breaker and Fuse.
-  Wide Compatibility: Compatible with leading inverter brands.

PRODUCT PARAMETERS

Model	FLA48300
Usable Capacity	15Kwh
Battery Type	LiFePO4
Nominal Voltage	51.2V
Operating Voltage	44.8-57.6V
Recommend Charge/Discharge Current[1]	≤150A
Recommend Charge/Discharge Power[1]	≤7500W
Maximum Charge/Discharge Current(15s)	200A
Maximum Charge/Discharge Power(15s)	10000W
Depth of Discharge(DOD)	≥95%
Scalability	Up to 15 units in parallel(225Kwh)
Communication	CAN&RS485
Ingress Protection	IP21
Cycle Life[2]	≥ 6000 Cycles
Charging Temperature Range	0~55℃
Discharging Temperature Range	-20~55℃
Display	LCD+LED
Installation	Floor-Mounted
Protection	Built-in smart BMS, Breaker, Fuse
Warranty	7 Years
Net Weight(KG)	135KG
Gross Weight(KG)	160KG
Product Dimension(MM)	480*1100*300MM
Package Dimension(MM)	635*1150*498MM
[1] Recommend charge/discharge current/power is affected by temperature and SOC.	
[2] Test conditions: 0.2C Charging/Discharging @25℃,80% DOD	

Convenient CAN&RS485 Communication



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Fsolar APP

LiFePO4 BATTERY SYSTEM

FLA48500



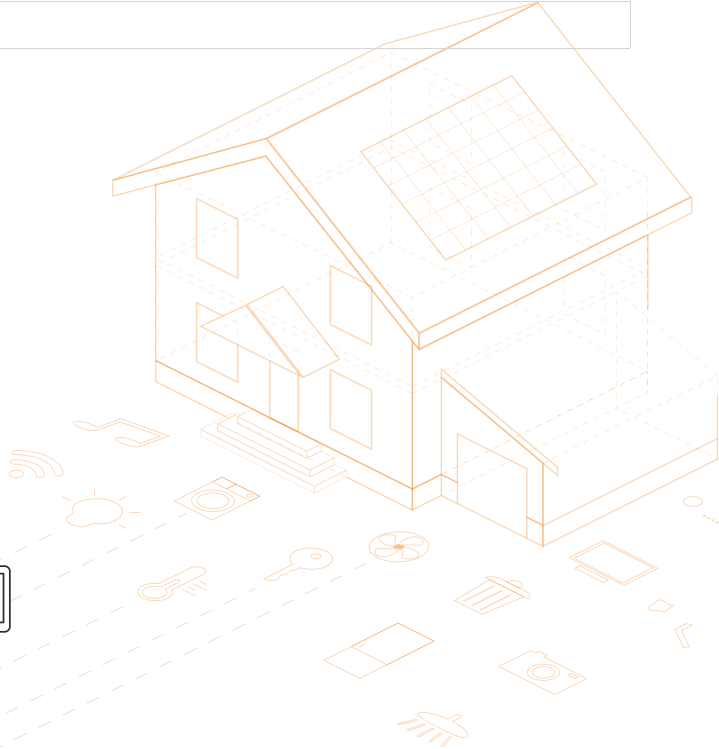
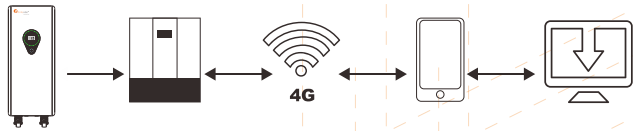
FEATURES

-  Long Warranty: 7 Years.
-  High Scalability: Capacity up to 375Kwh.
-  Flexible Installation: Movable type Floor-Mounted.
-  LiFePO4: Higher safe performance and longer cycle life.
-  Multiple Protection: Built-in smart BMS, Breaker and Fuse.
-  Wide Compatibility: Compatible with leading inverter brands.

PRODUCT PARAMETERS

Model	FLA48500
Usable Capacity	25Kwh
Battery Type	LiFePO4
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	Up to 15 units in parallel(375Kwh)
Communication	CAN&RS485
Ingress Protection	IP21
Cycle Life[2]	≥ 6000 Cycles
Charging Temperature Range	0~55°C
Discharging Temperature Range	-20~55°C
Display	LCD+LED
Installation	Floor-Mounted
Protection	Built-in smart BMS, Breaker, Fuse
Warranty	7 Years
Net Weight(KG)	218KG
Gross Weight(KG)	248KG
Product Dimension(MM)	718*380*990MM
Package Dimension(MM)	825*498*1162MM
[1] Recommend charge/discharge current/power is affected by temperature and SOC.	
[2] Test conditions: 0.2C Charging/Discharging @25°C,80% DOD	

Convenient CAN&RS485 Communication








LiFePO4 BATTERY SYSTEM

LUX-Y-48100HG01



FEATURES

-  Long Warranty: 10 Years.
-  Flexible Installation: Stack-Mounted.
-  LiFePO4: Higher safe performance and longer cycle life.
-  Wide Compatibility: Compatible with leading inverter brands.
-  Comprehensive Protection: Internal short circuit, over voltage, over current, over temp, under voltage.

PRODUCT PARAMETERS

Model		LUX-Y-48100HG01		
Battery Type		LiFePO4		
Module Energy		5.12KWh		
Single Module Nominal Voltage		51.2V		
Module Capacity		100AH		
Number of Battery Modules (Optional)		4(Min)	8	12
System Energy		20.48Kwh	40.96Kwh	61.44Kwh
System Nominal Voltage		204.8V	409.6V	614.4V
System Operating Voltage		192-230.4V	384-460.8V	576-691.2V
Recommend Charge/Discharge current		50A		
Max. continuous charge/Discharge current[1]		100A		
Peak Charge/Discharge current(15S)		120A		
Depth of Discharge(DOD)		≥ 95%		
Display type		LED+LCD(Touch)		
Protection Level		IP21		
OperatingTemperature Range		Charge:0~+55°C/Discharge:-20°C~+55°C		
Storge Temperature Range		0°C~+35°C		
Humidity		5%~95%		
Altitude		≤2000m		
Cycle Life[2]		≥ 6000 Cycles		
Installation		Rack-Mounting		
Protection		Built-in smart BMS, Breaker		
Communication Port		RS485 / CAN		
Warranty Period[3]		10 Year		
Control Module LUX-Y-48100HCG01	Product Dimension	482.6x565x150MM		
	Package Dimension	687x562x269MM		
	Product Weight Approximate	10.3KG		
	Package Weight Approximate	16.7KG		
Battery Module LUX-Y-48100HMG01	Product Dimension	482.6x565x131MM		
	Package Dimension	687x562x250MM		
	Product Weight Approximate	41.3KG		
	Package Weight Approximate	45KG		
Rack LUX-Y-48100HR13G01	Battery Designation	IFpP/54/150/120/[(1P16S)NS]M/-20+50/95		
	Product Dimension	560×590×2137.5 (13th floor)		
	Package Dimension	175×640×2085MM		
	Product Weight Approximate	62KG		
	Package Weight Approximate	69.5KG		
Rack LUX-Y-48100HR9G01	Product Dimension	560×590×1565.5MM(9th floor)		
	Package Dimension	175×640×1602.5MM		
	Product Weight Approximate	46KG		
	Package Weight Approximate	52kg(Approx)		

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

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

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

ALL-IN-ONE SYSTEM

AI100-5048/8048



FEATURES

- Real-time remote control via APP and website.
- Programmable supply priority for battery or grid.
- All in one design can save the installation time and space.
- Long warranty: 2 years for inverter and 5 years for battery.
- Flexible Storage Capacity with modular batteries from 5kwh ~20kwh.
- Easy for expansion: support 12pcs for 5kw and 6pcs for 8kw in parallel.
- Built-in MPPT solar charge controller, wide PV input voltage from 90VDC~450VDC.
- Full protection, high class of safety: Overload/Over temperature/Short circuit protection.

PRODUCT PARAMETERS







Inverter Model	AI100-5048	AI100-8048
Line Mode Specifications		
Rated Output Power(VA)	5000VA	8000VA
Rated Output Power(W)	5000W	8000W
Nominal DC Input Voltage	48V	48V
Nominal Input Voltage	48Vac	
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	150A
Over Charge Protection	Yes	
Solar Charging & Grid Charging		
Max. PV Open Circuit Voltage	500V	
PV Voltage Working Range	90V-450V	
Max. Input Power	6000W	8000W
Max. Solar Charging Current	100A	150A
Max. Charging Current(PV+Grid)	100A	150A
Max. Input Current	25A	53A
Min. Startup Voltage	95V	
Inverter Mode Specifications		
Output Voltage Waveform	Pure sine wave	
Nominal Output Voltage	230Vac+5%	
Parallel capability	Yes, up to 12 units	Yes, up to 6 units
Peak Efficiency	93%	
Over-Load Protection(SMPS load)	5.5s@≥150% load; 10.5s @105% ~150% load	
General Specifications		
Net Weight(KG)	17.7KG	26.8KG
Gross Weight(KG)	25.4KG	35.5KG
Product Dimension(MM)	660*180*350MM	660*180*500MM
Battery Model AI100-B5		
Usable Capacity	5.12Kwh	
Nominal Voltage	51.2V	
Recommend Charge/Discharge Current[1]	≤100A	
Recommend Charge/Discharge Power[1]	≤5000W	
Maximum Charge/Discharge Current(15s)	150A	
Maximum Charge/Discharge Power(15s)	7500W	
Scalability	Up to 15 units in parallel(76.8Kwh)	
Communication	CAN&RS485	
Ingress Protection	IP21	
Cycle Life[2]	≥ 6000 Cycles	
Display	LED	
Installation	Floor-Mounted	
Protection	Built-in smart BMS, Breaker, Fuse	
Warranty	7 Years	
Single Net Weight(KG)	44.5KG	
Single Gross Weight(KG)	48.4KG	
Single Product Dimension(MM)	660*180*420MM	
15° System Product Dimension(MM)	5K: 660*180*1610MM	5K: 660*180*1760MM
20° System Product Dimension(MM)	8K: 660*180*2030MM	8K: 660*180*2160MM
[1] Recommend charge/discharge current/power is affected by temperature and SOC.		
[2] Test conditions: 0.2C Charging/Discharging @25°C,80% DOD		

Commercial and Industrial System

Liquid Cooling System



FEATURES

-  **Long Life:** Cycle life ≥ 6000
-  **Integrated:** All in one design
-  **High Efficiency:** Battery 94%, system 87%
-  **Easy Mantaince:** Self diagnosis and fault location
-  **Easy Manage:** Ready to work, auto switch on grid / off grid mode
-  **High Safety:** No parallel / no circulating currents / three fire prevention

PRODUCT PARAMETERS









Model	FLS-ES232LC-S
DC	
Cell	LFP 280Ah
Voltage	650~949V
Pack Capacity /Arrangement	46.6KWH / 1P52S
Protection	Circuit braker and fuse
Enclosure Protection	IP67
System Capacity /Arrangement	232.9KWH/1P260S
Nominal Current	140A
Charge/Discharge Rate	$\leq 0.5Cp$
DC Efficiency	94%
AC (On Grid)	
Nominal Output Power	100KW
Nominal Input Voltage	AC340V~460V
Power Factor	-0.99~0.99
Nominal Output Current	145A
Nominal Grid Frequency	50Hz/60Hz
Wiring	3P+N+PE (Non isolated)
AC (Off Grid)	
Nominal Output Power	100KW
Nominal Input Voltage	AC400V $\pm 3\%$
THD	Linear Load $\leq 3\%$
Nominal Output Current	145A
Nominal Grid Frequency	50Hz/60Hz
Transformer/STS	No isolated transformer /STS inside
Output Wiring	3P+N+PE (Non isolated)
System	
Overall System Efficiency	87%&0.5P (STD)
Communication	LAN, ModbusTCP
Fire Prevention	Pack level FK5112+pack level Aerosol + water
DOD	5~95%
Charging/Discharging Rate	$\leq 0.5Cp$
Cooling Power	2.2kW/5.0kW@W18/L35
Cooling	Liquid cooling
Operation Temperature	-20°C~50°C(>45°C derating)
Cabinet Enclosure Protection for Cabinet	IP54
Relative Humidity Range	5~95%RH (no condensing)
Noise	<75dB
Weight	3000KG
Max. Operation Altitude	$\leq 2000M$
Size (MM)	1600Lx1400Dx2200H

Commercial and Industrial System

Air Cooling System



FEATURES

-  **Long Life:** Cycle life ≥ 6000
-  **Integrated:** All in one design
-  **Easy Expand:** With module design
-  **High Efficiency:** Battery 94%, system 87%
-  **Multi Branch:** Support load, battery and PV
-  **Easy Mantaince:** Self diagnosis and fault location
-  **Easy Manage:** Ready to work, auto switch on grid / off grid mode
-  **High Safety:** No circulating currents / three fire prevention

PRODUCT PARAMETERS

Model	FLS-MES215AF-S
DC	
Cell	LFP 280Ah
Number of MPPT	2
MPPT Operating Voltage/Full Load Voltage	250~ 850/450 ~850
Protection	Circuit braker and fuse
Pack Capacity /Arrangement	14.336KWH / 1P16S
Maximum PV Input Voltage/Power	1000V / 120kW
System Capacity /Arrangement	215KWH/1P240S
Nominal Current	140A
Charge/Discharge Rate	$\leq 0.5C_p$
DC Efficiency	94%
AC (On Grid)	
Nominal Output Power	100KW
Nominal Input Voltage	AC340V~460V
Power Factor	-1~1
Nominal Output Current	144A
Nominal Grid Frequency	50Hz/60Hz
Wiring	3P+N+PE
AC (Off Grid)	
Nominal Output Power	100KW
Nominal Input Voltage	AC400V
THD	Linear $\leq 1\%$ /Nonlinear $\leq 5\%$
Nominal Output Current	144A
Nominal Grid Frequency	50Hz/60Hz
Transformer/STS	No isolated transformer / STS inside
Output Wiring	3P+N+PE
System	
Overall System Efficiency	87%&0.5P (STD)
Communication	RS485, CAN, TCP/IP
Fire Prevention	FK5112
DOD	5~95%
Charging/Discharging Rate	$\leq 0.5C_p$
Cooling Power	1.1 kW/ 3.0 kW
Cooling	Forced air cooling
Operation Temperature	-20°C~50°C(>45°C derating)
Cabinet Enclosure Protection for Cabinet	IP54
Relative Humidity Range	5~95%RH (no condensing)
Noise	<75dB
Weight	3900KG
Max. Operation Altitude	$\leq 3000M$
Size (MM)	2450L*1550D*2400H

SOLAR GEL BATTERY

12V 100~200AH



FEATURES

- ✱ Lower self-discharge rate.
- 📦 Solve electrolyte stratificationsul furic acid evenly distributed.
- 🔋 Deeper discharge of the silica gel electrolyte lead-acid batteries extends the cycle life of the battery greatly.
- 🔌 Smaller charging current (about 1/3 of AGM battery) leads to lower energyconsumption and less warming.

INTRODUCTION

Good Quality Inverter Solar Gel Battery,High Reliability and Quality lead acid battery with Longer Service Life, it is the best choice of solar system.

Gelled electrolyte made by mixing sulfuric acid with silica fume;

High rate discharge performance due to tight assembly technology;

Avoid acid mist being separated out , environment friendliness;

Strong heat dissipation and wide operating temperature range;

Efficient venting system release excessive gas automatically;

The electrolyte is gel like ,immobile and does not leak ,enabling uniform reaction of each part of the plate.

PRODUCT PARAMETERS

Model	G 12V 100AH	G 12V 150AH	G 12V 200AH
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(KG)	32.8KG	44KG	61.5KG
Max. Discharge Current	1500A(5 sec)	1500A(5 sec)	2000A(5 sec)
Internal Resistance	Approx.5mΩ	Approx.4.2mΩ	Approx.4mΩ
RecommendedMaximum Charging	30A	45A	60A
Operating Temperature Range	Discharge:-20°C~60°C Charge:0°C~50C Storage:-20°C~60°C		
Normal OperatingTemperature Range	25°C±5°C		
Float charging Voltage	13.6 to 13.8V DC/unit Average at 25°C		
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. Pleasecharge batteries before using.		
Size(MM)	330*171*218MM	484*241*170MM	522*219*240MM

PRODUCT PERSPECTIVE



G 12V 100AH



G 12V 150AH



G 12V 200AH

SOLAR GEL BATTERY

FRONT TERMINAL 12V 100~200AH



INTRODUCTION

The Front Terminal Telecom series Battery is suitable for applications like: UPS system; Telecommunication system; Power station system; Railway system; Emergency lighting system; Automatic control system; Alarm systems for fire protection ,security; Solar,wind powered systems; Medical equipment; Marine Equipment; Electric instruments etc. The Front Terminal Telecom series is suitable for environments with large temperature differences and unstable grids, or renewable energy storage systems that have been in an electrical state for a long time.

PRODUCT PARAMETERS

Model	GE 12V 100AH	GE 12V 150AH	GE 12V 200AH
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	250Ah@10hr-rate to 1.80V per cell @25°C
Weight(KG)	31.0KG	43.5KG	56.0KG
Max. Discharge Current	1000A(5 sec)	1500A(5 sec)	2000A(5 sec)
Internal Resistance	Approx.5.5mΩ	Approx.5.0mΩ	Approx.3.8mΩ
Recommended Maximum Charging	30A	45A	60A
Operating Temperature Range	Discharge:-20°C~60°C Charge:0°C~50C Storage:-20°C~60°C		
Normal OperatingTemperature Range	25°C±5°C		
Float charging Voltage	13.6 to 13.8V DC/unit Average at 25°C		
Equalization and Cycle Service	14.4 to 14.6V DC/unit Average at 25°C		
Self Discharge	Front terminal batteries can be stored for more than 6 months at 25°C. Self-discharge ratio less than 3% per month at 25°C. Pleasecharge batteries before using.		
Size(MM)	410*109*293MM	550*110*290MM	561*125*317MM

FEATURES

- ✦ low self-discharge rate of the battery.
- 📦 Solve electrolyte stratification, sulfuric acid evenly distributed.
- ⚡ The silica gel electrolyte lead-acid batteries can be so deep discharge, thus greatly extending the cycle life of the battery.
- 🛡 The battery float current is small (about 1/3 AGM battery), the floating charge lower energy consumption, less warming, reduce battery thermal runaway risk.

PRODUCT PERSPECTIVE



GE 12V 100AH



GE 12V 150AH



GE 12V 200AH

SOLAR GEL BATTERY

OPzV 2V 200~2500AH



FEATURES

- ☀ Low self-discharge rate.
- 📄 Traditional tubular gel technology.
- 🛡 Design life at 25°C (77°F): 18 years.
- 🔥 Flame retardant ABS case (UL94 V-0, optional).
- ⚡ Remarkable high rate discharge performance.
- 📊 Initial capacities exceed the DIN standard value.
- 🌐 Comply with IEC, IEEE, UL, EN, CE standards, etc.
- 🔄 Excellent deep cycle and recovery performance.
- 🏠 Imported case and lid comply to DIN 40742 standard.
- 🛡 Reliable seal performance, and high recombination efficiency.
- 🔧 Flexible and convenient installation, and slinky outside looking.

INTRODUCTION

The OPzV series is designed with a gel electrolyte and a tubular positive plate. It also has the advantages of a valve-regulated battery (maintenance-free) and an open-cell battery (floating charge / cycle life). It is particularly suitable for use with a backup time of 1 to 20 hours. Because it is not limited by the use environment or maintenance conditions, the OPzV series is suitable for environments with large temperature differences and unstable grids, or renewable energy storage systems that have been in an electrical state for a long time.

PRODUCT PARAMETERS

Model	OPzV-200AH 2V	OPzV-500AH 2V	OPzV-1000AH 2V	OPzV-2500AH 2V
Nominal Voltage	2V			
Rated Capacity	200Ah (10hour rate) to 1.80V/cell @25	500Ah (10hour rate) to 1.80V/cell @25	1000Ah (10hour rate) to 1.80V/cell @25	2500Ah (10hour rate) to 1.80V/cell @25
Typical Weight(KG)	20KG	41KG	80KG	192KG
Internal Resistance	Approx. 0.615mΩ	Approx.0.495mΩ	Approx.0.238mΩ	Approx.0.142mΩ
Charge Current	50A	125A	500A	625A
Operating Temperature Range	Operation(maximum) : -40°C to 55°C(- 40°F to 131°F) Operation(recommended) : 15°C to 25°C(- 59 °Fto 77°F) Storage : -20°Cto 40°C(- 4 °F to 104°F)			
Float Voltage	2.23V/cell@25°C(77°F)			
Equalize and Cycle Service	2.23V~2.4V/cell@25°C(77°F)			
Self Discharge	The residual capacity is above 94% after 90 days storage(25°C / 77 F)			
Terminal	M8 Female Large Size Copper Post			
Terminal Hardware Torque	15 ± 1.0Nm			
Container Material	ABS (V0 optional)			
Size(MM)	103*206*356MM	166*206*473MM	233*210*646MM	487*212*770MM

PRODUCT PERSPECTIVE







MPPT CHARGE CONTROLLER

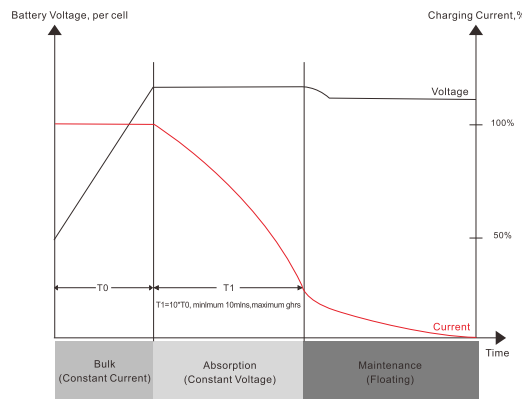
SCCM-II 2024~12048



FEATURES

-  Maximum efficiency up to 98%.
-  Three-stage charging optimizes battery performance.
-  Maximum charging current up to 20A/30A/45A/60A/80A/100A/120A.
-  Intelligent Maximum Power Point Tracking technology increases efficiency 25%~30%.

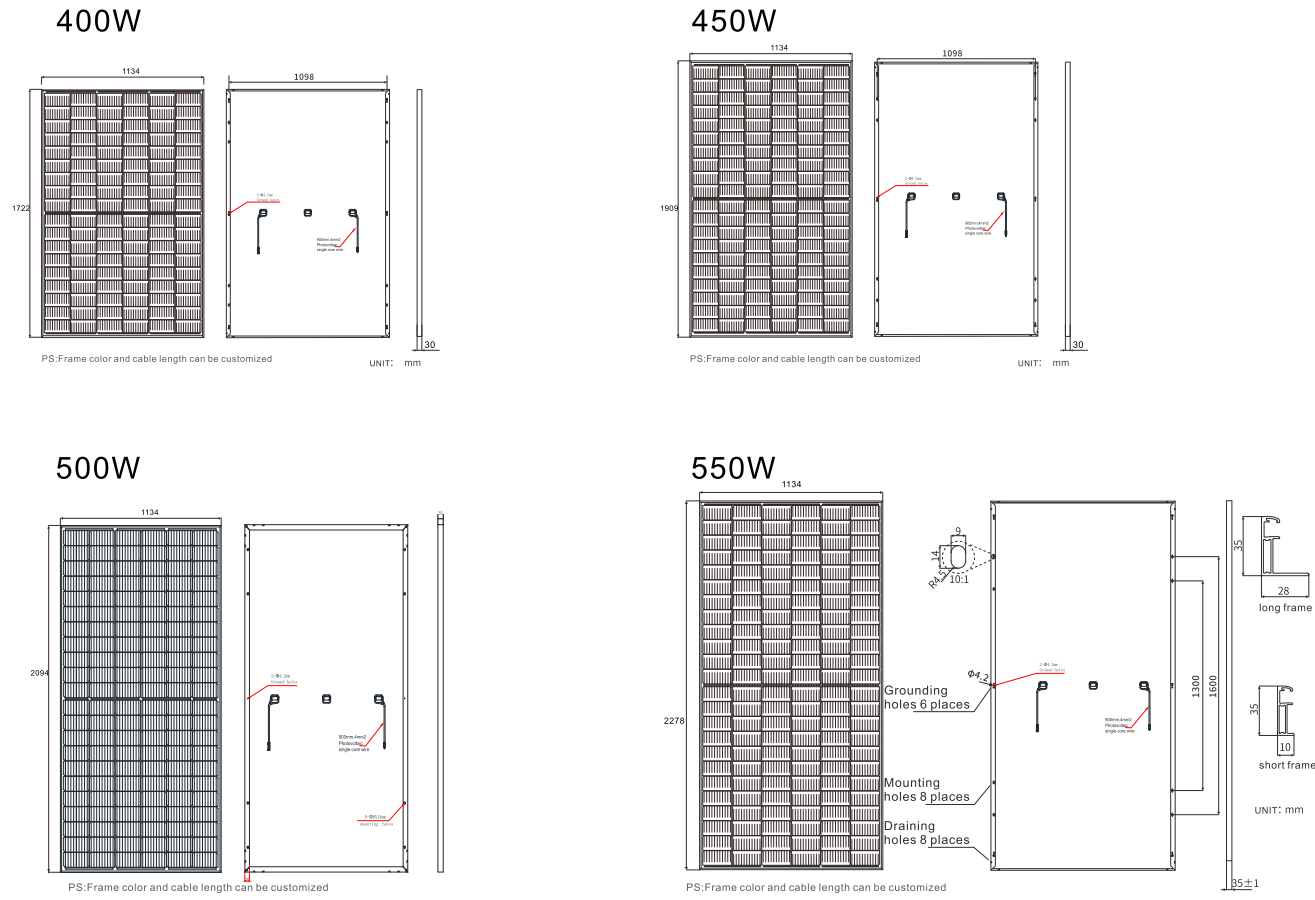
PRODUCT PARAMETERS

Model	SCCM2024-II	SCCM3024-II	SCCM4524-II	SCCM4548-II	SCCM6048-II	SCCM8048-II	SCCM10048-II	SCCM12048-II
Electrical Specifications								
Maximum Battery Current	20Amps	30Amps	45Amps	45Amps	60Amps	80Amps	100Amps	120Amps
Nominal System Voltage	12,24VDC(Auto detection)			12V, 24V, 48V DC (Auto detection)				
Maximum Solar Input Voltage	95V			145V			195V	
PV Start-up Voltage	15V							
PV Array MPPT Voltage Range	12VDC/24VDC			12 VDC / 24 VDC / 48 VDC				
	15-80VDC/30-80VDC			15-130VDC / 30-130VDC/60-130VDC			15-170VDC / 30-170VDC/ 60-170VDC	
Maximum Input Power	12V - 280W	12V - 420W	12V - 625W	12V - 625W	12V - 825W	12V - 1100W	12V - 1375W	12V - 1650W
	24V - 550W	24V - 830W	24V - 1250W	24V - 1250W	24V - 1650W	24V - 2200W	24V - 2750W	24V - 3300W
	/	/	/	48V - 2500W	48V - 3300W	48V - 4400W	48V - 5500W	48V - 6600W
Charging Algorithm	3-Step							
Charging stages	Bulk, Absorption, Float							
Temperature compensation coefficient	-5 mV /°C / cell (25°Cref.)							
Temperature compensation range	0 °C to +50 °C							
Charging Curve								
Mechanical and Environment								
Product Dimension(MM)	240x70x102	240x170x102	265x188x162	265x188x116	308x212x125	322x238x140	360x250x149	360x250x156
Product Weight(KG)	0.9 KG	1.06 KG	3.36 KG	2.99 KG	3.2 KG	3.5 KG	5.1 KG	5.1 KG
Ambient Temperature Range	0 °C to +55 °C							
Storage Temperature	25 °C to +75 °C							
Humidity	0%-90%RH(No condensing)							
Enclosure	IP20(indoor&vented)							

SOLAR PANEL MONO 400W~550W

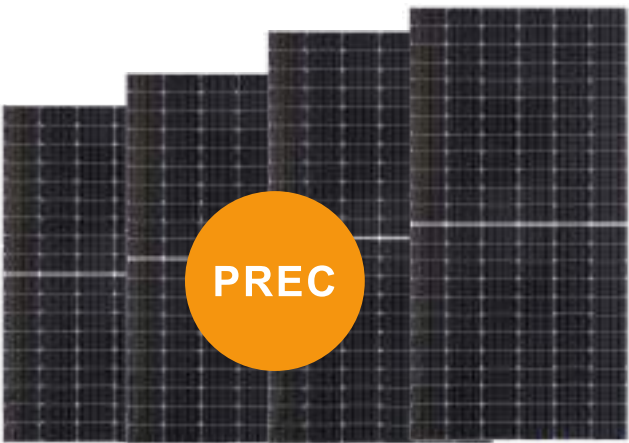


Mechanical Diagrams



Levelized Cost of Energy Save 6-8%

- ↓7% Saving cable cost
- ↓6% Saving logistics cost
- ↓9% Saving labor cost
- ↓8% Saving bracket cost



Electrical Parameters at STC

Model	MSD108-EM400W	MSD120-EM450W	MSD132M-EM500W	MSD144M-EM550W
Rated Maximum Power(Pmax)[W]	400Wp	450Wp	500Wp	550Wp
Open Circuit Voltage(Voc)[V]	38V	42.72V	46.9V	51.1V
Maximum Power Voltage(Vmp)[V]	32V	35.6V	39.1V	42.6V
Short Circuit Current(Isc)[A]	13.2A	13.3A	13.4A	13.6A
Maximum Power Current(Imp)[A]	12.5A	12.6A	12.7A	12.9A
Power Tolerance	±3%	±3%	±3%	±3%
Temperature Coefficient ofIsc (α _Isc)	-0.398%/°C	+0.046%/°C	+0.046%/°C	+0.046%/°C
Temperature Coefficient of Voc (β _Voc)	-0.340%/°C	-0.276%/°C	-0.276%/°C	-0.276%/°C
Temperature Coefficient of Pmax(γ _Pmp)	-0.0576%/°C	-0.350%/°C	-0.350%/°C	-0.350%/°C
STC	Irradiance 1000W/m2,Cell temperature 25°C, AM1.5			
*Standard test conditions: solar irradiance 1000 W/m%, solar spectrum 1.5AM and cell temperature 25 °C				

Operating Conditions

Model	MSD108-EM400W	MSD120-EM450W	MSD132M-EM500W	MSD144M-EM550W
Maximum System Voltage	1500VDC	1500VDC	1500VDC	1500VDC
Operating Temperature	-40°C~+85°C	-40°C~+85°C	-40°C~+85°C	-40°C~+85°C
Maximum Series Fuse	25A	25A	25A	25A
Maximum Static Load, Front	5400Pa(112lb/ft ²)	5400Pa(112lb/ft ²)	5400Pa(112lb/ft ²)	5400Pa(112lb/ft ²)
Maximum Static Load, Back	2400Pa(501b/ft ²)	2400Pa(501b/ft ²)	2400Pa(501b/ft ²)	2400Pa(501b/ft ²)
NOCT	45±2°C	45±2°C	45±2°C	45±2°C
Backside Ratio	70%±10%	70%±10%	70%±10%	70%±10%
Fireproof Performance	UL Type 29	UL Type 29	UL Type 29	UL Type 29

PROJECT CASE

Solar power system is more and more popular because it is an effective solution to supply continuous power for unstable power area in a environmental-friendly way. By now, we have installed power plant in various countries, such as Mali, Nigeria, Columbia and Panama, etc.



Lebanon battery pack display



Case of Lithium Battery in Bamako, Mali



Guinea battery pack project case



Cameroon battery pack project case



Senegal battery pack project case



R.D.Congo Battery pack project case