



PVI / ESS

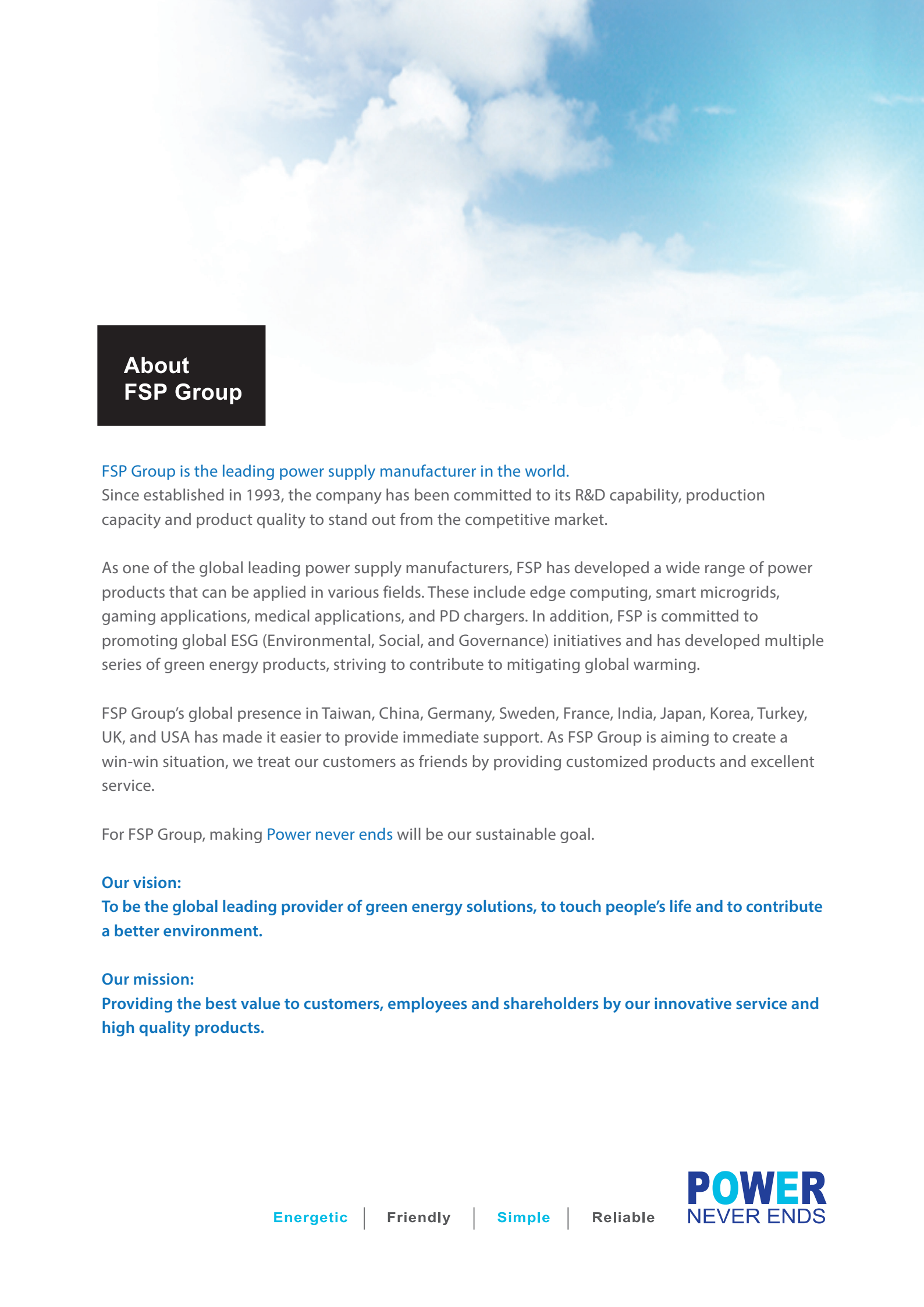
LightUp Series

EnerXPack 5000

EnerX 3000

EnerXPack 2500

POWER
NEVER ENDS



About FSP Group

FSP Group is the leading power supply manufacturer in the world.

Since established in 1993, the company has been committed to its R&D capability, production capacity and product quality to stand out from the competitive market.

As one of the global leading power supply manufacturers, FSP has developed a wide range of power products that can be applied in various fields. These include edge computing, smart microgrids, gaming applications, medical applications, and PD chargers. In addition, FSP is committed to promoting global ESG (Environmental, Social, and Governance) initiatives and has developed multiple series of green energy products, striving to contribute to mitigating global warming.

FSP Group's global presence in Taiwan, China, Germany, Sweden, France, India, Japan, Korea, Turkey, UK, and USA has made it easier to provide immediate support. As FSP Group is aiming to create a win-win situation, we treat our customers as friends by providing customized products and excellent service.

For FSP Group, making **Power never ends** will be our sustainable goal.

Our vision:

To be the global leading provider of green energy solutions, to touch people's life and to contribute a better environment.

Our mission:

Providing the best value to customers, employees and shareholders by our innovative service and high quality products.

Energetic | **Friendly** | **Simple** | **Reliable**

POWER
NEVER ENDS



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LightUp E2000 / E3000

Off-grid Solar Inverter



E3000

E2000

APPLICATIONS

- Pico-Grid for Household
- Prefabricated Houses
- Electrification in Rural Areas

FEATURES

- Pure sinewave inverter
- Compatible with utility and generator
- Smart battery management
- Energy independency
- Auto restart while AC is recovering

LightUp
E2000 / E3000
Specifications

MODEL NAME	E2000 (PVI2001-2V00)	E3000 (PVI3001-2V00)
Nominal Output Power (W)	2000	3000
AC OUTPUT		
AC Voltage Regulation (Vac)	230 ± 5% (Battery Mode)	230 ± 5% (Battery Mode)
Surge Power (VA)	4000	6000
Transfer Time (ms)	< 20	< 20
Waveform	Pure Sine Wave	Pure Sine Wave
AC INPUT		
Nominal Voltage (Vac)	230	230
Voltage Range (Vac)	90 ~ 280	90 ~ 280
Frequency (Hz)	50 / 60 (Auto Sensing)	50 / 60 (Auto Sensing)
PV INPUT		
Charger Type	PWM	PWM
Maximum Power (W)	1200	1200
Open Circuit Voltage (Vdc)	80 (max.)	80 (max.)
Charge Current (A)	50 (max.)	70 (max.)
BATTERY		
Nominal Voltage (Vdc)	24	24
Floating Charge Voltage (Vdc)	27	27
Over-charge Protection (Vdc)	31	33
INTERFACE		
Communication	USB / RS232	USB / RS232
MECHANICAL		
Dimension (mm)	D 88 x W 225 x H 320	D 100 x W 285 x H 334
Net Weight (kgs)	5	6.3
ENVIRONMENTAL		
Humidity (%)	5 ~ 95 (Relative Humidity)	5 ~ 95 (Relative Humidity)
Operating Temperature (°C)	-10 ~ 50	-10 ~ 50
Storage Temperature (°C)	-15 ~ 60	-15 ~ 60
SAFETY		
Certifications	IEC 62109-1, IEC 62109-2, EN 55032	

Product specifications are subject to change without further notice.

LightUp P5000

Off-grid Solar Inverter



APPLICATIONS

- Micro-Grid for Household
- Prefabricated Houses
- Power Supply for Holiday Cottage on Sea Islands
- Power Backup for Users Facing Frequent Power Cuts

FEATURES

- Pure sinewave inverter
- Compatible with utility and generator
- Smart battery management
- Energy independency
- Auto restart while AC is recovering
- Removable LCD control module
- Multiple communication ports for BMS
- Integrated Bluetooth interface with APP

LightUp
P5000
Specifications

MODEL NAME	P5000 (PVI5001-2V00)
Nominal Output Power (W)	5000
AC OUTPUT	
AC Voltage Regulation (Vac)	230 ± 5% (Battery Mode)
Surge Power (VA)	10000
Transfer Time (ms)	< 20
Waveform	Pure Sine Wave
AC INPUT	
Nominal Voltage (Vac)	230
Voltage Range (Vac)	90 ~ 280
Frequency (Hz)	50 / 60 (Auto Sensing)
PV INPUT	
Charger Type	MPPT (1)
Maximum Power (W)	5000
Operating Voltage Range (Vdc)	120 ~ 450
Open Circuit Voltage (Vdc)	500 (max.)
Charge Current (A)	100 (max.)
BATTERY	
Nominal Voltage (Vdc)	48
Floating Charge Voltage (Vdc)	54
Over-charge Protection (Vdc)	63
INTERFACE	
Communication	USB / RS232 / RS485 / Bluetooth
MECHANICAL	
Dimension (mm)	D 115 x W 300 x H 400
Net Weight (kgs)	10
ENVIRONMENTAL	
Humidity (%)	5 ~ 95 (Relative Humidity)
Operating Temperature (°C)	-10 ~ 50
Storage Temperature (°C)	-15 ~ 60
SAFETY	
Certifications	IEC 62109-1, IEC 62109-2 ,EN 55032

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System
Configurations



PV Modules



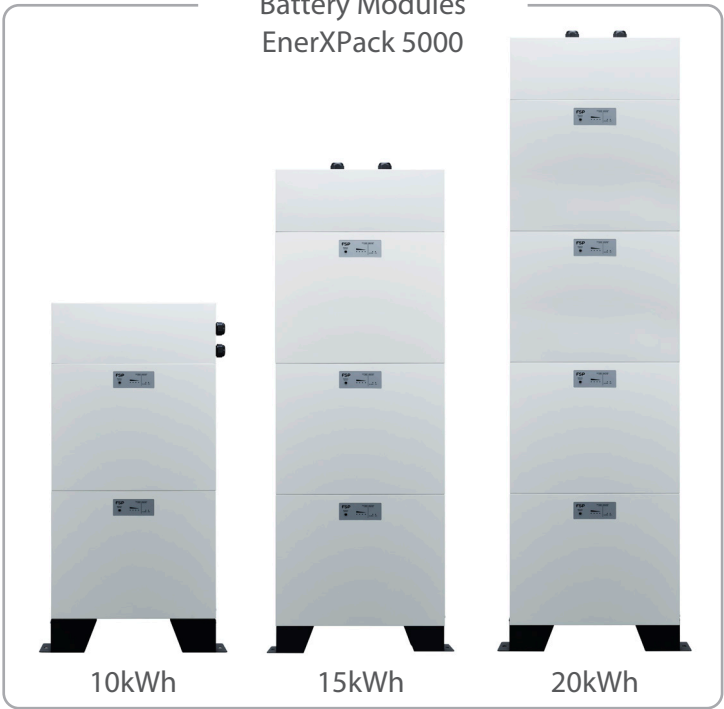
Public Grid

Inverter
LightUp P5000



Home Appliances

Battery Modules
EnerXPack 5000



03

LightUp P6000

Off-grid Solar Inverter



APPLICATIONS

- Micro-Grid for Household
- Prefabricated Houses
- Power Supply for Holiday Cottage on Sea Islands
- Power Backup for Users Facing Frequent Power Cuts

FEATURES

- Pure sinewave inverter
- Compatible with utility and generator
- Smart battery management
- Energy independency
- Auto restart while AC is recovering
- Removable LCD control module
- Multiple communication ports for BMS
- Integrated Bluetooth interface with APP

LightUp
P6000
Specifications

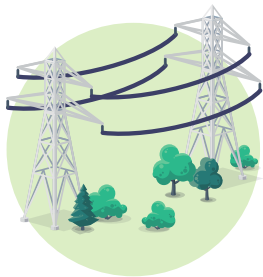
MODEL NAME	P6000 (PVI6001-2V00)
Nominal Output Power (W)	6000
AC OUTPUT	
AC Voltage Regulation (Vac)	230 ± 5% (Battery Mode)
Surge Power (VA)	5s @ 150% load
Transfer Time (ms)	< 20
Waveform	Pure Sine Wave
AC INPUT	
Nominal Voltage (Vac)	230
Voltage Range (Vac)	90 ~ 280
Frequency (Hz)	50 / 60 (Auto Sensing)
PV INPUT	
Charger Type	MPPT (1)
Maximum Power (W)	6000
Operating Voltage Range (Vdc)	120 ~ 500
Open Circuit Voltage (Vdc)	500 (max.)
Input Current (A)	27
Charge Current (A)	120 (max.)
BATTERY	
Nominal Voltage (Vdc)	48
Floating Charge Voltage (Vdc)	54
Over-charge Protection (Vdc)	66
INTERFACE	
Communication	USB / RS232 / RS485 / Wi-Fi
MECHANICAL	
Dimension (mm)	D 140 x W 295 x H 468
Net Weight (kgs)	12
ENVIRONMENTAL	
Humidity (%)	5 ~ 95 (Relative Humidity)
Operating Temperature (°C)	-10 ~ 50
Storage Temperature (°C)	-15 ~ 60
SAFETY	
Certifications	IEC 62109-1, IEC 62109-2, EN 55032

Product specifications are subject to change without further notice.

System Configurations

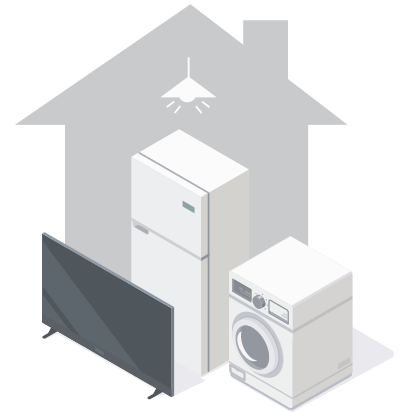


PV Modules



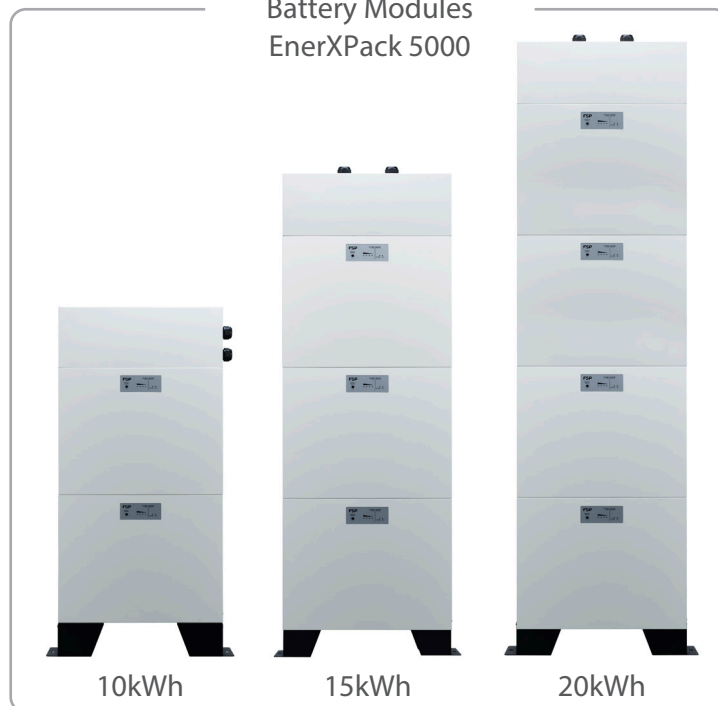
Public Grid

Inverter
LightUp P6000



Home Appliances

Battery Modules
EnerXPack 5000



LightUp L8000 / L11K

Off-grid Solar Inverter



APPLICATIONS

- Power supply for farming barns
- Commercial Buildings & Industrial Factories
- Power supply for places where is no access to the utility
- Self-sufficient power system for energy independence

FEATURES

- Pure sinewave inverter
- Compatible with utility and generator
- Smart battery management
- Dual outputs with loads management
- Movable LCD control module
- Multiple communication ports for BMS
- Integrated Wi-Fi monitoring with APP
- Parallel operation with multiple units

LightUp
L8000 / L11K
Specifications

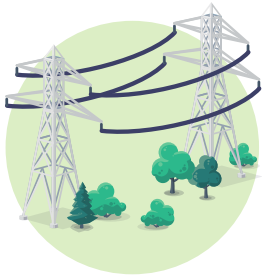
MODEL NAME	L8000 (PVI8001-2V00)	L11K (PVI0113-2V00)
Nominal Output Power (W)	8000	11000
Parallel Units	6	6
AC OUTPUT		
AC Voltage Regulation (Vac)	230 ± 5% (Battery Mode)	230 ± 5% (Battery Mode)
Surge Power (VA)	16000	22000
Transfer Time (ms)	< 20	< 20
Waveform	Pure Sine Wave	Pure Sine Wave
AC INPUT		
Nominal Voltage (Vac)	230	230
Voltage Range (Vac)	90 ~ 280	90 ~ 280
Frequency (Hz)	50 / 60 (Auto Sensing)	50 / 60 (Auto Sensing)
PV INPUT		
Charger Type	MPPT (2)	MPPT (2)
Maximum Power (W)	8000 (4000 x 2)	11000 (5500 x 2)
Operating Voltage Range (Vdc)	90 ~ 450	90 ~ 450
Open Circuit Voltage (Vdc)	500 (max.)	500 (max.)
Input Current (A)	27 x 2	27 x 2
Charge Current (A)	120 (max.)	150 (max.)
BATTERY		
Nominal Voltage (Vdc)	48	48
Floating Charge Voltage (Vdc)	54	54
Over-charge Protection (Vdc)	66	63
INTERFACE		
Communication	USB / RS232 / RS485 / Wi-Fi	USB / RS232 / RS485 / Wi-Fi
MECHANICAL		
Dimension (mm)	D 148 x W 433 x H 554	D 148 x W 433 x H 554
Net Weight (kgs)	18.4	18.4
ENVIRONMENTAL		
Humidity (%)	5 ~ 95 (Relative Humidity)	5 ~ 95 (Relative Humidity)
Operating Temperature (°C)	-10 ~ 50	-10 ~ 50
Storage Temperature (°C)	-15 ~ 60	-15 ~ 60
SAFETY		
Certifications	IEC 62109-1, IEC 62109-2, EN 61000-6-2, EN 61000-6-4	

Product specifications are subject to change without further notice.

System Configurations



PV Modules



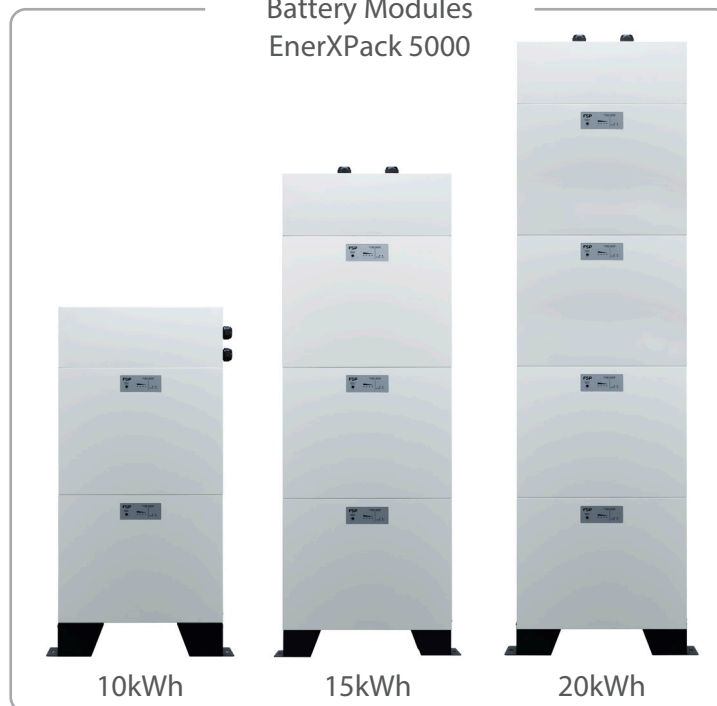
Public Grid

Inverter
LightUp L8000 / L11K



Home Appliances

Battery Modules
EnerXPack 5000



10kWh

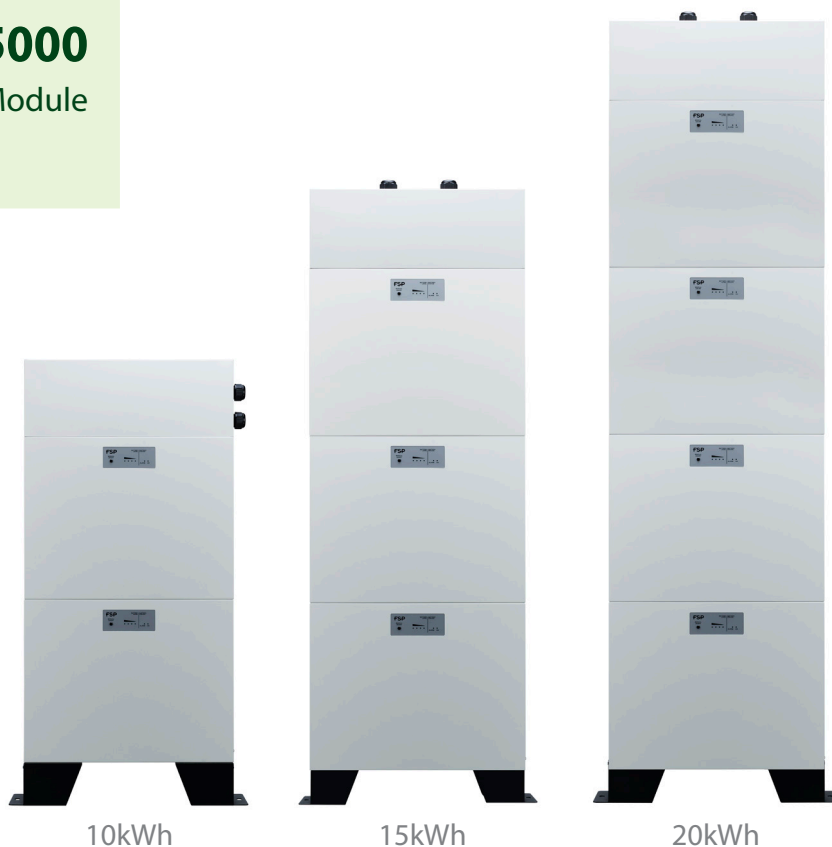
15kWh

20kWh

05

EnerXPack 5000

48V Battery Pack Module



10kWh

15kWh

20kWh

EnerXPack 5000 Specifications

FEATURES

- Operated with LightUp series off-grid inverter.
- Flexible configuration from 10kWh to 20kWh.

MODEL NAME		EnerXPack 5000	
Cell Material		LFP	
Applicable Inverter Power (kW)		6 ~ 12	
Number of Module	2	3	4
Output Energy (kWh)	10	15	20
Nominal Voltage (V)	51.2	51.2	51.2
Operating Voltage Range (V)	40 ~ 56	40 ~ 56	40 ~ 56
Nominal Discharge Current (A)	300	300	300
Maximum Discharge Current (A)	384 (@1 min)	384 (@1 min)	384 (@1 min)
MECHANICAL			
Dimension (mm)	D 185 x W 540 x H 1040	D 185 x W 540 x H 1460	D 185 x W 540 x H 1880
Net Weight (kgs)	102	150	198
INTERFACE			
Communication		RS485 port (RJ45) / CAN	
ENVIRONMENTAL			
Operating Temperature (°C)		0 ~ 50	
Storage Temperature (°C)		25 ~ 45 (under 3 Months) ; -20 ~ 25 (under 18 Months)	
IP Protection		IP 20	
SAFETY			
Cerifications		UN 38.3 / IEC 62619	

Product specifications are subject to change without further notice.

EnerX 3000

Portable Energy Storage System



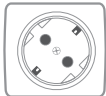
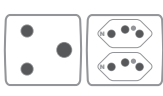
APPLICATIONS

- Home Energy Storage System
- Prefabricated Houses
- Holiday Markets and Bazaars
- Shopping Mall Vendors
- Dining Cars / RV
- Constructions Fields

FEATURES

- Plug and play, easy installation
- 3000 Watt AC output power
- 3000 Watt fast charging power
- Flexible configuration design
- Safety guard design to protect all you needs
- Moveable and home energy storage system
- Multiple AC & DC outputs supports
- Three ways to power on by grid, solar and battery
- Wi-Fi connection and App remote control

EnerX 3000 Specifications

MODEL NAME	ESS3001-1V00	ESS3001-2V00	ESS3001-2V01	ESS3001-2V02	ESS3001-2V03	ESS3001-2V04
Nominal Output Power (W)	3000					
AC OUTPUT						
AC Voltage Regulation (Vac)	100/ 110/ 120 ± 5% (Battery Mode)		220 / 230 / 240 ± 5% (Battery Mode)			
Surge Power (VA)	6000					
Transfer Time (ms)	< 20					
Waveform	Pure Sine Wave					
Socket Type	NEMA x 5 	Universal x 4 	EU x 4 	UK x 4 	SA x 4 	SA x 2 & BRAZIL x 2 
DC OUTPUT						
DC Output Ports	2 USB-C (PD 3.0) : 2 USB-A					
USB-C Output	20V / 3.25A : 9V / 2A : 5V / 3A					
USB-A Output	9V / 2A : 5V / 3A					
AC INPUT						
Nominal Voltage (Vac)	100 / 110 / 120		220 / 230 / 240			
Voltage Range (Vac)	60 ~ 140		90 ~ 280			
Frequency (Hz)	50 / 60 (Auto Sensing)					
AC Charge Current (A)	100 (max.)					
PV INPUT						
Maximum Power (W)	3000					
Operating Voltage Range (Vdc)	60 ~ 400					
Open Circuit Voltage (Vdc)	450 (max.)					
DC Charge Current (A)	100 (max.)					
BATTERY						
Energy (Wh)	2500					
Nominal Voltage (Vdc)	25.6					
Typical Capacity (Ah)	100					
Full Charge Voltage (Vdc)	28.2					
Charge Current (A)	100					
Full Discharge Voltage (Vdc)	22.0					
Continuous Discharge Current (A)	120 (max.)					
Discharge Current (A)	200 (max.)					
Protection	BMS, Breaker					
Lifecycle*	* 0.5C charging / discharging ≥ 80% @ EOL 100% DoD		≥ 3500 cycles			
USER INTERFACE						
Function Keys	Touch PAD					
Communication	Wi-Fi					
MECHANICAL						
Dimension (D x W x H mm)	450 x 600 x 222					
Net Weight (kgs)	42					
SAFETY STANDARD						
Certifications	IEC/EN 62109-1/-2, EN 61000-6-4, EN 61000-6-2, IEC 62619, UN 38.3, EN 55032, EN 55035					

Product specifications are subject to change without further notice.

EnerXPack 2500 Specifications

07

EnerXPack 2500

Expand Battery Module

MODEL NAME	EnerXPack 2500
Cell Material	LFP
Output Energy (kWh)	2.5
Nominal Voltage (V)	25.6
Full Charge Voltage (V)	28.2
Full Discharge Voltage (V)	22
Maximum Discharge Current (A)	200
Protection	BMS, DC Breaker
MECHANICAL	
Dimension (mm)	450 x 600 x 222 mm
Net Weight (kgs)	25
ENVIRONMENTAL	
IP Protection	IP 20
SAFETY	
Certifications	UN 38.3 / IEC 62619



EnerXPack 2500 System Configurations

FEATURES

- Only operated in parallel with EnerX 3000
- Flexible configuration from 2.5kWh to 7.5kWh

6kW

Output Power (kW)



2.5kWh

5.0kWh

7.5kWh

15.0kWh

Battery Capacity (kWh)



3kW

Output Power (kW)

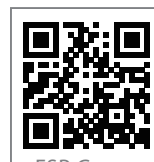


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