

# Specification

<b>Customer</b>	Eniro Best Solution B.V.
<b>Product</b>	Portable Power Station
<b>Models</b>	SP2500-EQ-L

Version V1.0      2022.12.27

Customer Approval	

Please return a copy of specification you approved.

Prepared	Checked	Approved

**惠州市华阳光电技术有限公司**  
HUIZHOU FORYOU OPTOELECTRONICS TECHNOLOGY CO., LTD

## 1.Scope

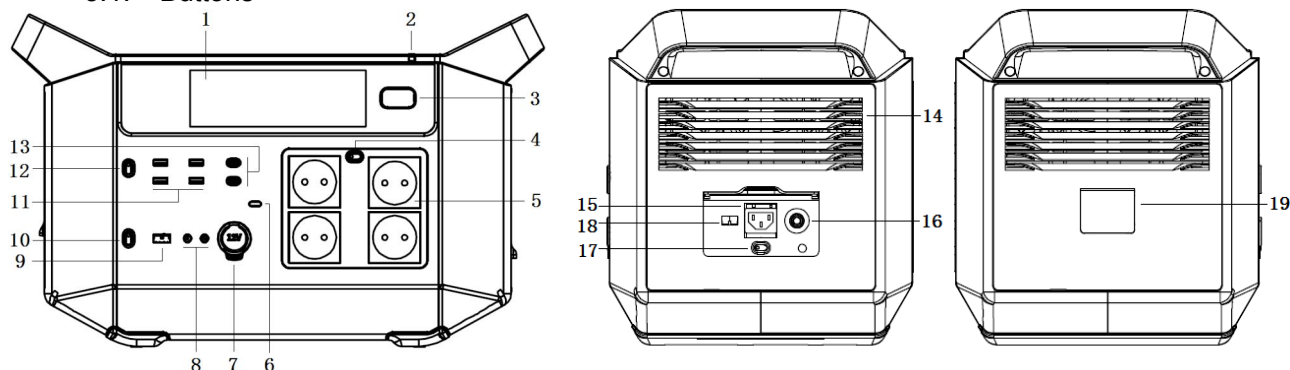
- 1.1. Any doubt over the specification shall be interpreted by R&D dept. of Foryou Optoelectronics Technology Co., Ltd.
- 1.2. Components or manufacturing process may be changed within the scope of specification for improvement.
- 1.3. Always use the product within conditions given in the specification.

## 2.General specifications (Test condition: Ta=25±2℃)

Item	Specification	Remark
Basic specifications		
Rated AC output	2500W	230V 50Hz, pure sine wave
Battery energy	2496Wh	48V LiFePO4 battery
Battery cycle Life	4000 cycles	25℃, 70%+ capacity left.
Dimension	51.5*29.2*32.2cm	
Weight	about 25.5kg	
Total input power	1400W max	AC input 1400W max, DC input 800W max
Charging temperature	0~40℃	Charging below 0℃ will affect the battery life.
Discharge temperature	-20~45℃	
Storage temperature	Short-term(<3 months): -20~45℃ Long-term(3~12 months): 0~25℃	The product not used needs to be charged once every three months.
Smart functions		
EPS	Start-up time ≤30ms	Start when AC input is interrupted.
Smart car-charging	Smart recognition for car-charging	The function is not available when the car engine is not working.
Auto-charging	Maintain 90% capacity	Auto-charging when the machine is long-term connected to utility power.
Super load	Rated power of load <3900W	Supports loads exceeding the rated power of the machine. Except inductive load.
AC output ports(×4P)		
Output current	One single port <10A	Total current of 4 ports is 10A max.
Load Capacity	Rated 2500W	Max instantaneous power 4500W
USB/DC output ports		
USB-A port (×4)	5V-3A,9V-2A,12V-1.5A; max 18W	Switched by USB output switch.
Type-C port (×2)	5V/9V/12V/15V-3A, 20V-5A; max 100W	
Cigar lighter port (×1)	13V-10A max; 130W	Switched by DC output switch. Total current of the three ports is 15A max.
DC5521 port (×2P)	13V-3A max; 39W	
Anderson port (×1)	13V-15A max; 195W	
AC input		
Input voltage	230V	50Hz
Input power	1400W max	Charging time is about 2.4H.
DC input		
Input power	800W max	
Car-charging	13.2V, max 8A	Charging time is about 26H.
Solar charging	18V~40V, max 22A	Fastest charging time is 3.5H.

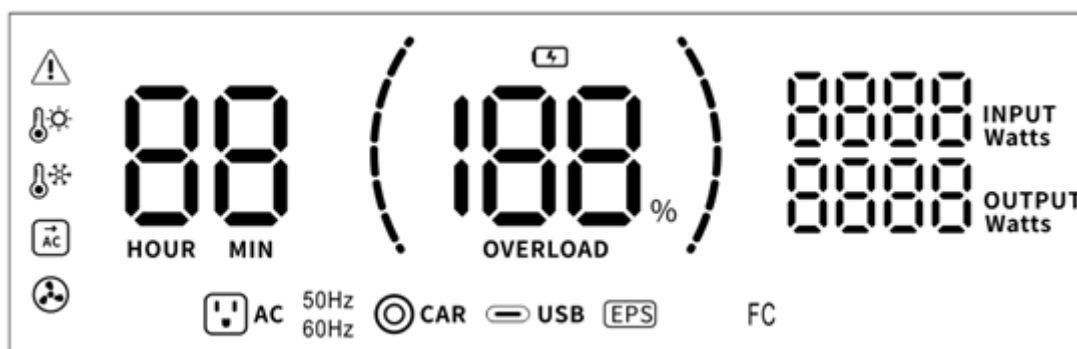
### 3.Buttons & Screen

#### 3.1. Buttons







1.Screen	2.Indicator light	3.Power switch	4.AC output switch
5.AC output port	6.key tone switch	7.Cigar lighter output port	8.DC5521 output port
9.Anderson output port	10.DC output switch	11.USB-A output port	12.USB output switch
13.Type-C output port	14.Vent	15.AC input port	16.AC input reset button
17.Fast charging switch	18.DC input port(Anderson)	19.Extra battery port(Not enabled)	

#### 3.2. Screen



Icon	Icon description	Icon	Icon description
100%	Percentage of battery capacity	88 HOURS MIN	Charging/discharging remaining time
AC	AC output on	Charging. Rolling display ( )	Charging. Rolling display ( )
50Hz 60Hz	AC input/output frequency	FC	Fast charging on
CAR	DC output on	USB	USB output on
8888 INPUT Watts	Charging power	8888 OUTPUT Watts	Discharging power
EPS	EPS mode on	Fan working icon	Fan working
OVERLOAD	Flashes as AC output over rated power, is always on as overload.	Fan failure icon	Fan failure
Battery failure icon	Battery failure	DC output failure icon	DC output has failure and is off.
USB failure icon	USB output has failure and is off.	AC output failure icon	AC output has failure and is off.
AC input abnormal icon	AC input is abnormal.	DC input abnormal icon	DC input is abnormal.

	High-temp alarm for power devices when all flashing. Output is off.		Low-temp alarm for power devices when all flashing. Output is off.
	High-temp alarm for battery when all flashing. Output is off.		Low-temp alarm for battery when all flashing. Output is off.

#### 4.Port specifications

Port	Item	Min	STD.	Max	Remark
AC input	Input voltage range	207V	230V	253V	230V $\pm$ 10%
	Input current range	5.3A	6.4A	8A	
	Standard charging	-	0.3C	-	Charging time is about 3.3H.
	Fast charging	-	0.41C	-	Charging time is about 2.4H.
DC input	Input voltage range	13.2V	-	40V	Intelligent identify car-charging and solar charging.
	Input current range	0A	-	22A	
	Reverse input polarity protection	-	support	-	
AC output	Output voltage range	-	230Vac	-	50Hz, pure sine wave
	Output power	0W	-	2500W	
	Short time output power1	-	2472W	2640W	103%-110% overload, lasting 60S
	Short time output power2	-	2640W	3120W	110%-130% overload, lasting 30S
	Short time output power3	-	3120W	3600W	130%-150% overload, lasting 10S
	Short time output power4	-	3600W	4500W	150%-187% overload, lasting 20mS
	Output frequency	-	50Hz	-	
	Overload protection	-	31A	-	
	Short circuit protection	-	support	-	See *1
Cigar lighter output	Output voltage range	12V	13V	14.5V	
	Output current range	-	10A	-	
	Overload protection	16A	17A	18A	See *2
	Short circuit protection	-	support	-	See *1
DC5521 output	Output voltage range	12V	13V	14.5V	
	Output current range	-	3A	-	
	Overload protection	16A	17A	18A	See *2
	Short circuit protection	-	support	-	See *1
Anderson output	Output voltage range	12V	13V	14.5V	
	Output current range	-	15A	-	
	Overload protection	16A	17A	18A	See *2
	Short circuit protection	-	support	-	See *1
USB-A output	Output voltage range	4.75V	5V	5.25V	5V default, auto identify QC protocol and output corresponding voltage. QC3.0/2.0,FCP,SCP,AFC,MTKPE+2.0/1.1,Apple2.4A,BC1.2
		8.55V	9V	9.45V	
		11.25V	12V	12.5V	
	Output current range	-	-	3A	when 5V
		-	-	2A	when 9V
		-	-	1.5A	when 12V
	Overload protection	-	18W	-	See *2
	Short circuit protection	-	support	-	See *1
Type-C output	Output voltage range	4.75V	5V	5.25V	Auto identify QC protocol and output corresponding voltage. PD3.0/PD2.0/PPS,QC3.0/QC2.0,FCP,SCP,AFC,MTKPE+2.0/1.1,Apple2.4A,BC1.2
		8.55V	9V	9.45V	
		11.4V	12V	12.6V	
		14.25V	15V	15.75V	
		19V	20V	21V	
	Output current range	-	-	5.0A	
	Overload protection	-	3.3A	-	5~15V. See *2
		-	5.3A	-	20V. See *2
	Short circuit protection	-	support	-	See *1

\*1: When the output port, wire or external equipment is short-circuited, output is stopped. After the short circuit is lifted, need to restore output manually by pressing the output switch.

\*2: Output is off as overload. After the overload is lifted, need to restore output manually by pressing the output switch.

## 5. Operation Description

Item	Operation	Remark
Turn on the machine	Short press the power switch	
Turn off the machine	Long press the power switch	No operation for more than 12H, the machine will be closed.
Turn on/off the screen	Short press the power switch when the machine is turned on	No operation for more than 5M, the screen will be closed.
Turn on/off AC output	Short press the AC output switch	
Turn on/off DC output	Short press the DC output switch	
Turn on/off USB output	Short press the USB output switch	
Turn on/off key tone	Short press the key tone switch	
Fast charging	Short press the fast charging switch	In EPS mode, fast charging is not enabled.
Reset AC input	Short press the AC input reset button	When AC input overload
Enter EPS mode	Turn on AC output as AC input on	

## 6. Structural specifications

Item	Specification	Remark
Product size	51.5*29.2*32.2cm	
Inner box size	61.4*38.4*43.5cm	With one machine in it.
Carton box size	63*40*46.4cm	With one inner boxes in it.

## 7. Use and storage attentions

### 7.1. Use attentions

- 1) Do not approach or expose the machine to high temperature environment, such as fire source, heating equipment, etc.
- 2) Do not short-circuit, overcharge or overdischarge the machine.
- 3) Do not subject the machine to excessive mechanical impact, and it is forbidden to needle, beat, bump, trample or throw power supply.
- 4) Do not invade the machine into any liquid, such as seawater or water; Do not use it in a thunderstorm or wet environment.
- 5) Don't use the machine in the environment of strong electricity and magnetic field.
- 6) Do not disassemble or repair the machine by yourself. If you need to repair or replace parts, please contact the official channel provider.
- 7) Do not place the machine with metal conductive items such as necklaces, coins, hairpins, wires, etc.
- 8) Do not block the fan outlet of the machine, or use the machine in a dusty environment.
- 9) Please keep the machine out of the reach of children and pets.
- 10) Please strictly follow the user's instruction to use this machine, so as to prevent the machine from being damaged and malfunctioning, thus causing serious accidents such as battery fire or explosion.
- 11) Do not discard the machine directly, please discard it according to local laws and regulations, or contact a professional battery recycling company for disposal.

### 7.2. Storage recommendations

The machine should be stored in the temperature range of 0℃~25℃, low humidity and corrosion-free environment, away from heat sources, water sources and metal conductive articles. It should be charged to 30% of capacity for short-term storage(<3 months) and to 60% of capacity for long-term storage(3~12 months).

The delivery machine is in nearly 30% charging state. Due to the machine's self-consumption, the machine delivered to the client can't be completely guaranteed to enter the working state immediately. During transportation, violent vibration, impact, sun and rain should be prevented. If the machine has not been used for a long time or the power is seriously insufficient, it is necessary to charge the product before further use.