

**LESSO**

**BUILDING A SOLAR-POWERED WORLD**

LESSO NEW ENERGY DEVELOPMENT PRIVATE LIMITED  
One Raffles Quay, North Tower, #19-03, 48583 Singapore  
CHINA LESSO, STOCK CODE:2128.HK

**LESSO**

Portable Energy Storage  
System Solution





## Company Overview

Headquartered in Singapore, LESSO Solar specializes in making solar panels and related products and providing new-energy solutions covering various clients' needs: residential, commercial, industrial, commercial and utility scale.

## Building a Green Energy Ecosystem

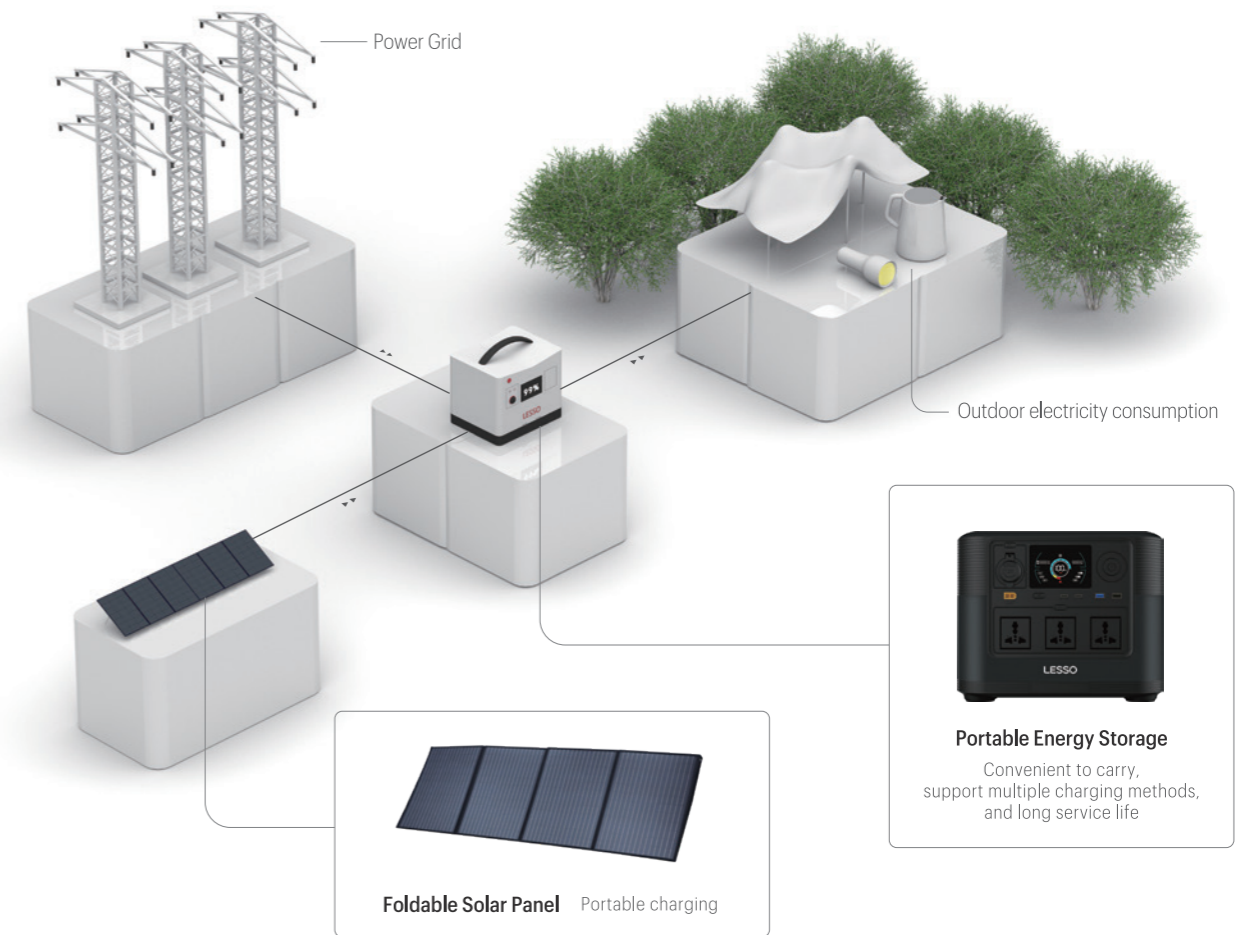
The world's demand for energy is rapidly shifting towards a preference for green energy. LESSO is committed to building a smart energy ecosystem by building an interconnected energy network, creating mutually beneficial partnerships with other players in the ecosystem, promoting the global goal of "carbon neutrality", creating a clean energy lifestyle for all.

## New Energy, New Lifestyle

LESSO Solar focuses on renewable energy generation and storage systems, providing a fully customizable solution, taking into consideration the lifecycle of the entire system, to cater to the various needs of different customers.



LESSO energy storage products are applicable with all kinds of on-board devices, digital devices, small household appliances, refrigerators, unmanned aerial vehicles, game consoles, cameras, etc; It is often used in short distance travel, camping, outdoor photography, live broadcast and other scenarios.



#### Portable Energy Storage System Solution

This setup is applicable to outdoor power use scenarios such as family excursions, outdoor exploration, outdoor operation, emergency rescue, emergency standby, etc. A simple power supply system can be built outdoors by using LESSO's portable energy storage all-in-one machine. It can be connected to solar panels, power grids or power generators. It consists of a built-in lithium iron phosphate battery, off-grid inverter and energy management system (EMS). The portable energy storage system can use solar panels, power grid or diesel generator for charging. It has a multi-function power socket and is convenient to use. Maximum 5kW power and 5.12kWh battery capacity can support outdoor long-term power supply.

#### Advantages

Portable, aesthetic design, user-friendly, easy to carry  
Built-in lithium iron phosphate battery, multiple software protection settings, safe and reliable

The maximum power supply is 5.12 Kwh, and is fully adjustable  
Power grid or photovoltaic charging are both applicable

## Portable Energy Storage



### P3

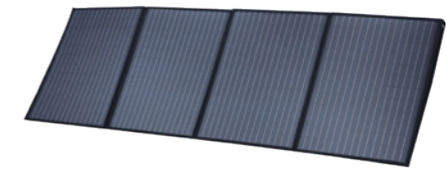
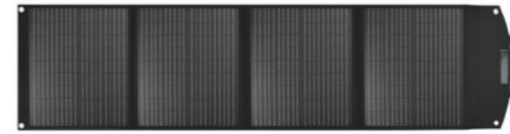
### P11

### P10

Model Number	P3 320W	P11 1200W	P10 1200W
Battery	298Wh (3.2V / 93120mAh) LiFePO4 Battery	1120Wh (3.2V/35000mAh) LiFePO4 Battery	LFP 32140 1008Wh
Input	P3/P11: DC7909 Port DC 10V-18V P10: XT60 Plug	wall outlet: DC 12V/5.5A, 65W car outlet: 12V/5.5A, 65W	wall outlet: DC 250W car outlet: 12V/7.2A, 90W
		solar panel: MPPT 12V-18V	solar panel: MPPT 12V-18V/12.5A (250W) MAX
Output	USB-A	/	/
	USB-A*2	5-6.5V/3A 6.5-9V/2A 9-12V/1.5A 18W (QC3.0)	5~6.5V/3A 6.5~9V/2A 9~12V/1.5A 18W (QC3.0)
	USB-B	/	/
	USB-C	5V/3A 9V/3A 12V/3A 15V/3A 20V/3A 60W (PD3.0)	/
	USB-C*2	/	5V/3A 9V/3A 12V/3A 15V/3A 20V/3A 60W (PD3.0)
	TYPE-C1	/	/
	TYPE-C2	/	/
DC Output	DC5521*2	12.8V/4A (4.5A Max)	12.8V/10A (10.5A Max)
	Car Port	12.8V/10A (10.5A Max)	12.8V/10A (10.5A Max)
P10: AC Output P3: AC Output*2 P11: AC Output*3	Sine Wave	220V±10V, 50Hz±3Hz 320W Max continuous 640W surge peak	220V±10V, 50Hz±3Hz 1200W Max continuous 2400W surge peak
LED Light	LED light: half-light / full-light / SOS	LED light: half-light / full-light / SOS	/
Cycle Life	>2000 times	>2000 times	>2000 times
Battery Protections	A. over voltage protection B. low voltage protection C. discharge over current protection D. short circuit protection E. charge over current protection F. temperature protection		
Accessories	AC power adapter / car charger / user manual		
Dimensions (mm)	188*160*200	313*230*206	290*230*220
Weight (kg)	4.1	11	10.5
Charging Temperature	/	/	0~40°C
Working Temperature	/	/	-10~40°C

Remarks: specifications are subject to change without notice

## Four-fold Portable PV Module

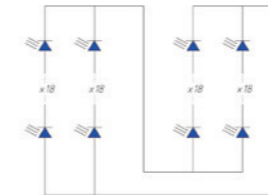


### 19.8V 120W

#### PV module dimension specification

Expanded dimension: 1730\*520\*5mm  
Folded dimension: 520\*370\*50mm  
Product weight: 4.2KG

#### Working mode of solar panel



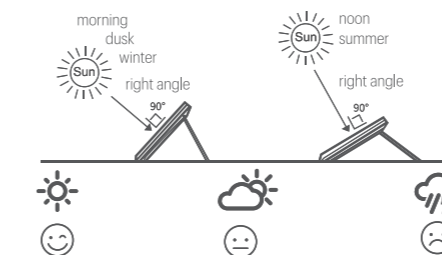
#### Output electrical parameters of PV module

Output power(@STC): 120W±5%  
Open circuit voltage(@STC): 24V±5%  
Rated operating voltage (@STC): 19.8V±5%  
Rated operating current (@STC): 6A±5%  
Short circuit current (@STC): 6.3A±5%

Note: STC: Standard Tested Condition: AM=1.5, 25°C, 1000W/m<sup>2</sup>

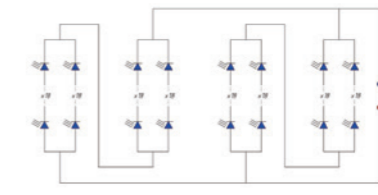
#### About using

1. Expand the solar panel to expose it to direct sunlight
2. Connect the electronics or MC4 cable to the solar panel
3. Do not place the solar panel in a cool place or near the fire source



### 19.8V 200W

Expanded dimension: 2360\*540\*5mm  
Folded dimension: 530\*530\*58mm  
Product weight: 7.9KG



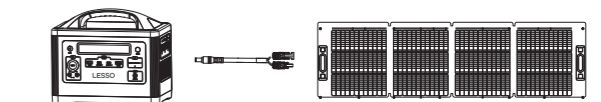
#### Output electrical parameters of PV module

Output power(@STC): 200W±5%  
Open circuit voltage(@STC): 24V±5%  
Rated operating voltage (@STC): 19.8V±5%  
Rated operating current (@STC): 10.1A±5%  
Short circuit current (@STC): 10.6A±5%

Note: STC: Standard Tested Condition: AM=1.5, 25°C, 1000W/m<sup>2</sup>

#### Charging mode

1. Expand the panel twice
2. Connect the DC cable to the MC4 port on the solar panel
3. Connect the other side of the DC cable to the portable power station



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## Pull Rod Portable Energy Storage



### W30



### W50

Model Number		W30	W50
Battery		high quality lithium ion batteries (50.4V56.1Ah/2827.4Wh)	high quality lithium ion batteries (50.4V107.1Ah/5397.84Wh)
Input	25MF four-core aviation power socket	wall outlet: DC 58.8V/9A , 529W	wall outlet: DC 58.8V/13A , 764W
	16MF four-core aviation power socket	solar panel: MPPT , 360W , 36V DC , 10A Max	solar panel: MPPT , 360W , 36V DC , 10A Max
USB Output	USB-A	5-6.5V/3A 6.5-9V/2A 9-12V/1.5A 18W ( QC3.0 )	5-6.5V/3A 6.5-9V/2A 9-12V/1.5A 18W ( QC3.0 )
	USB-C	5V/3A 9V/3A 12V/3A 15V/3A 20V/3A 60W ( PD3.0 )	5V/3A 9V/3A 12V/3A 15V/3A 20V/3A 60W ( PD3.0 )
DC Output	25MF-4B aviation socket	DC 40V-58.8V/10A Max	DC 40V-58.8V/10A Max
	16MF-3B three-core aviation socket	DC 24V±5%/10A Max	DC 24V±5%/10A Max
	Car Port	DC 11V-13V/10A Max	DC 11V-13V/10A Max
AC Output	Sine Wave	220V±10% , 50Hz±3Hz 3000W Max continuous 3200W surge peak	220V±10% , 50Hz±3Hz 3000W Max continuous 3200W surge peak
Communication Protocol		RJ485 communication port	RJ485 communication port
LED Light (optional)		60W LED light : half-light / full-light / SOS	60W LED light : half-light / full-light / SOS
Recharging Temperature		0-45°C	0-45°C
Operating Temperature		-20-45°C	-20-45°C
Cycle Life		>1000 times Cycle70%	>1000 times Cycle70%
Battery Protections		A.over voltage protection B.low voltage protection C.discharge over current protection D.short circuit protection E.charge over current protection F.temperature protection	
Accessories		AC power adapter / car charger / user manuel	
Product Dimensions ( mm )		580*460*250	580*460*250
Packing Size ( mm )		710*610*385	710*610*385
Product Weight ( kg )		31.25	44.25
Packing List		1 x power adapter and power cable 1 x 24V output aviation plug 16MF-3A 1 x 48V output aviation plug 25MF-4A 1 x MC4 to GX16 solar wire 1 x product instruction	

Remarks: specifications are subject to change without notice

From the city to the countryside  
From commercial to residential  
We drive the growth of renewable energy



Working outdoors? We keep your laptop and other electronic devices functioning.



Behind the hustle and bustle of the beautiful night market, a small energy storage battery powers through the night to bring brightness and joy to it's visitors.



Ensure adequate electrical power when you enjoy outdoor activities with friends and family.