



ESS Solar Energy Storage System
Clean Power Better Life

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MightyESS New Energy CO., LTD.

SEARCH

ABOUT US

As a leading global new energy enterprise, MightyESS leads the global new energy revolution with solar cells, photovoltaic modules, photovoltaic power stations, energy storage, and more. We provide green solutions and integrated services for new energy globally, continuously helping customers achieve their "low-carbon" or "zero carbon" goals through our products, and helping the entire society enter the era of carbon neutrality!

Foshan MightyESS New Energy Co., Ltd. has been committed to solving customers' electricity problems since its establishment. We have an experienced, skilled, and innovative R&D team; We have designed and installed solar power supply system equipment for many factories, dormitories, school student apartments, hotels, hospitals, villas, and household users. Our company focuses on product quality and after-sales service, and has established a comprehensive service system to provide customers with better and higher quality services. Adhering to the service tenet of "customer first, honesty based", we provide customers with 24-hour and comprehensive thoughtful services, and with high-quality product quality, we ensure that the vast majority of every customer is at ease. Design excellent electricity system solutions and installation plans for customers before sales. Based on the principle of "saving investment, energy conservation and environmental protection for customers".

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MSO Series All-in-one Solar Generator (GEL)



- Low Frequency Design
- Off Grid Single Phase
- Pure Sine Wave Solar Generator
- 3KW/4KW/5KW/6KW
- All-in-one Design
- Portable For Outdoor Activities
- LCD+LED display
- IP21 Protection Grade
- Built-in MPPT
- Built-in Battery
- Cabinet for GEL/VRLA Batteries
- Wide Input Voltage Range
- AC/DC/ECO Priority Working Modes
- Battery Type/Voltage/Current Settable on Screen
- Battery Over/low Voltage, Overload, Short Circuit, Over-temp. Protection.



Simpler

Wallmount
Easy installation



Safer

Multi protections
Comply with international standards



Stronger

Transformer based design
Suitable for harsh environment



MSO Series All-in-one Solar Generator (GEL)

Model	3000W	4000W	5000W	6000W
Input Data(AC)				
Input Voltage Range	165-265Vac			
Input Frequency Range	45-55Hz/55-65Hz			
Phase	Single phase			
Input Data(DC/PV)				
MPPT Current	30A/60A			
MPPT Voltage Range	48VDC			
Operation Voltage Range	65-150VDC			
Max. Input Voltage	150VDC			
Max. Input Power	1440W/2880W			
Output Data(AC)				
Rated Output Power	3000W	4000W	5000W	6000W
Crest Ratio (Max)	3:1			
Output Voltage	Inverter: 230VAC±5%			
Output Frequency	50Hz/60Hz±1%			
Transfer Time	<=4ms			
Wave Form	Pure Sine Wave			
Total Harmonic Distortion	THD<3% (linear load)			
Output Data(DC)				
USB	5Vdc/1A*2			
DC2.0	12Vdc/5A*2			
Efficiency				
Inverter Efficiency	>=90%			
MPPT Efficiency	>=96.5%			
Mechanical Data				
Operating Ambient Temp.	-20°C to +40°C			
Storage Temp.	-40°C to +70°C			
battery cabinet size: Gel battery	2*12V200AH	4*12V200AH	4*12V200AH	4*12V200AH
Dimension(W*D*H)/cm	64cm*25cm*88		65cm*57cm*88cm	
Weight	50kg		60kg	
IP Rating	IP20			
Cooling Mode	Fans-cooling			
Other Features				
Communication	Rs232(Optional)			
Noise	<=55dB			
Transformer Design	Low Frequency Toroidal Transformer			
Humidity	0-95%, none condensing			
Protection Functions	Battery over/under voltage, overload, short circuit, over-temperature.			

*The specifications, dimensions and materials are subject to change without further notice.

MSO Series All-in-one Solar Generator (Lithium)



- Low Frequency Design
- Off Grid Single Phase
- Pure Sine Wave Solar Generator
- 3KW/4KW/5KW/6KW/8KW/10KW
- All-in-one Design
- Portable For Outdoor Activities
- LCD+LED display
- IP21 Protection Grade
- Built-in MPPT
- Built-in Battery
- Cabinet for 19-inch Rackmount Batteries
- Wide Input Voltage Range
- AC/DC/ECO Priority Working Modes
- Battery Type/Voltage/Current Settable on Screen
- Battery Over/low Voltage, Overload, Short Circuit, Over-temp. Protection.



Simpler

Wallmount
Easy installation



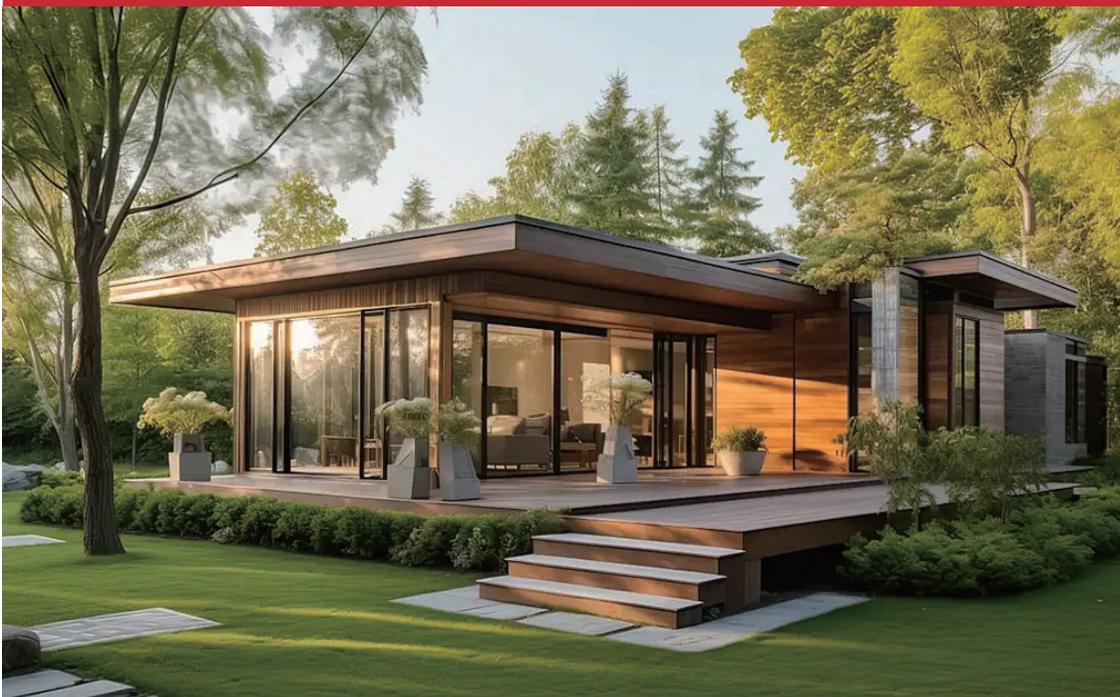
Safer

Multi protections
Comply with international standards



Stronger

Transformer based design
Suitable for harsh environment



MSO Series All-in-one Solar Generator (Lithium)

Model	3000W	4000W	5000W	6000W	8000W	10000W
Input Data(AC)						
Input Voltage Range	165-265Vac					
Input Frequency Range	45-55Hz/55-65Hz					
Phase	Single phase					
Input Data(DC/PV)						
MPPT Current	30A/60A					
MPPT Voltage Range	48VDC					
Operation Voltage Range	65-130VDC					
Max. Input Voltage	150VDC					
Max. Input Power	1440W/2880W					
Output Data(AC)						
Rated Output Power	3000W	4000W	5000W	6000W	8000W	10000W
Crest Ratio (Max)	3:1					
Output Voltage	Inverter: 230VAC±5%					
Output Frequency	50Hz/60Hz±1%					
Transfer Time	<=4ms					
Wave Form	Pure Sine Wave					
Total Harmonic Distortion	THD<3% (linear load)					
Output Data(DC)						
USB	5Vdc/1A*2					
DC2.0	12Vdc/5A*2					
Efficiency						
Peak Efficiency	>=90%					
Nominal MPPT Efficiency	>=96.5%					
Mechanical Data						
Operating Ambient Temp.	-20°C to +40°C					
Storage Temp.	-40°C to +70°C					
Battery capacity: lithium battery	5.12kwh/10.24kwh/15.36kwh/20.48kwh(Optional)					
Dimension(W*H*D)/cm	45cm*60.3cm*61cm/45cm*60.3cm*100cm/45cm*60.3cm*120cm					
Weight	117kg	120kg	125kg	130kg	140kg	150kg
IP Rating	IP20					
Cooling Mode	Fans-cooling					
Other Features						
Communication	Rs232(Optional)					
Noise	<=55dB					
Transformer Design	Low Frequency Toroidal Transformer					
Humidity	0-95%, none condensing					
Protection Functions	Battery over/under voltage, overload, short circuit, over-temperature.					

*The specifications, dimensions and materials are subject to change without further notice.

MSO Series All-in-one Solar Generator (Lithium)



- All in one, factory prefabricated design;
- Flexible deployment, plug and play;
- Incorporating STS , it achieves seamless switching between on off grid.
- Incorporating DCDC, it enables PV integration, saving electricity costs.
- Programmable working mode, touch screen control;
- Intelligent switching strategies for different scenarios:
- Peak shaving, self-consumption, dynamic scaling, planned curve response;
- Linkage of local and cloud monitoring, rapid digital diagnosis, and intelligent automatic inspection;
- High efficient neutral point clamped;
- No parallel circulation, reduce energy loss significantly;
- 3S collaboration,EMS closed-loop safety logic,make sure system security;
- Equipped with active and reactive power quadrant regulation.
- Equipped with LVRT and HVRT(Low and High Voltage Ride Through).
- Equipped with precise switching between power, grid, and loading.



Simpler

Floor-standing
Easy installation



Safer

Multi protections
Comply with international standards



Stronger

Transformer based design
Suitable for harsh environment



MSO Series All-in-one Solar Generator (Lithium)

Model	50KW-100KWH	63KW-120KWH	80KW-160KWH	105KW-200KWH	105KW-225KWH	125KW-250KWH
On Grid Parameter						
Rated Output Power	50KW	63KW	80KW	105KW	105KW	125KW
Max. Output Power	55KW	69KW	88KW	116KW	116KW	138KW
AC Voltage Range	400Vac±15%					
Rated AC Frequency	50±5Hz					
Power Factor	0.99					
THDI	<=3% (rated power)					
Overload capacity	110% long term					
Connect method	Three phase 4 wires					
Off Grid Parameter						
Rated Output Voltage	400Vac					
Rated Output Power	50KW	62.5KW	80KW	100KW	100KW	125KW
Rated Output Frequency	50±5Hz					
THDI	<=3% (linear load)					
Unbalanced Load Capacity	100%					
Overload Capacity	110% long term					
Charging and Discharge conversion	<20ms					
Battery Parameter						
Battery Config.	1P224S	1P252S	1P224S	1P224S	1P224S	1P238S
Battery Cell Type	LFP150Ah	LFP150Ah	LFP230Ah	LFP280Ah	LFP314Ah	LFP320Ah
Nominal Voltage	716.8	806.4Vdc	716.8Vdc	716.8Vdc	716.8Vdc	761.6Vdc
Operating Voltage	650~796V	730~895V	650~796V	650~796V	650~796V	690~845V
Battery Capacity	108KWH	121KWH	165KWH	201KWH	225KWH	244KWH
Input Data(DC/PV)						
Voltage Range	500-620V	500-700V	500-620V	500-620V	500-620V	500-660V
Max. Input Power	50KW				100KW	
Rated current on low voltage side	100A				200A	
Max. Efficiency	>=99%					
Number of MPPT Tracker	1				2	
System Efficiency						
PCS Max. Efficiency	>=98%					
System Max. Efficiency	>90%					
Charging and Discharge Rate	<=0.5C					
Protection						
Battery reverse connection protection	Yes					
DC overcurrent protection	Yes					
AC overvoltage protection	Yes					
Surge protection	Yes					
AC Output Protection	Yes					
Fire protection system	Non-stationary pressure perfluoroacetone					
Grid support	L/HVRT, active and reactive power control					
Mechanical Data						
Dimension(W*H*D)/mm	1400*1400*2200				1400*1950*2200	
Weight	2.5 Ton	2.8 Ton	3 Ton	3.3 Ton	3.7 Ton	4 Ton
Incoming Line Method	Side entry					
Operating Temp.	-20°C to +50°C(Derating power from 45°C)					
Charging Temp.	0°C to +50°C					
Discharging Temp.	-10°C to +60°C					
Humidity	0-95%, none condensing					
Altitude	5000m (Derating power from 2000m)					
IP Rating	IP54 (IP65 for key components)					
Cooling Mode	Industrial air conditioning for battery, forced air cooling for electrical part					
Communication						
Interface	Rs485/Ethernet					
Rules	RTU/MODBUS-TCP					

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