

**MARSTEK**

**ENERGY STORAGE SYSTEM  
SOLAR GENERATOR  
POWERSTATION**



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An aerial photograph of a residential property. A dark-colored car is parked in a concrete driveway. The house has a grey shingled roof with several solar panels installed. The surrounding area includes green grass and trees. A semi-transparent dark grey box is overlaid on the right side of the image, containing text.

# POWER ANYWHERE & ANYTIME

## OUR STORY

Marstek is a technology innovation brand that focuses on solar energy storage, committed to continuously exploring the best clean energy solutions for the future, meeting the beautiful vision of human adventure life and a green earth. The existing products cover household energy storage systems, outdoor power supplies, solar panels, and other energy storage products, providing electricity solutions for various home and outdoor scenarios. With its ultra-high quality and innovative design, the product is highly recognized by users in developed countries such as the United States, the European Union, and Japan, and has a high awareness and reputation in the global energy storage field.

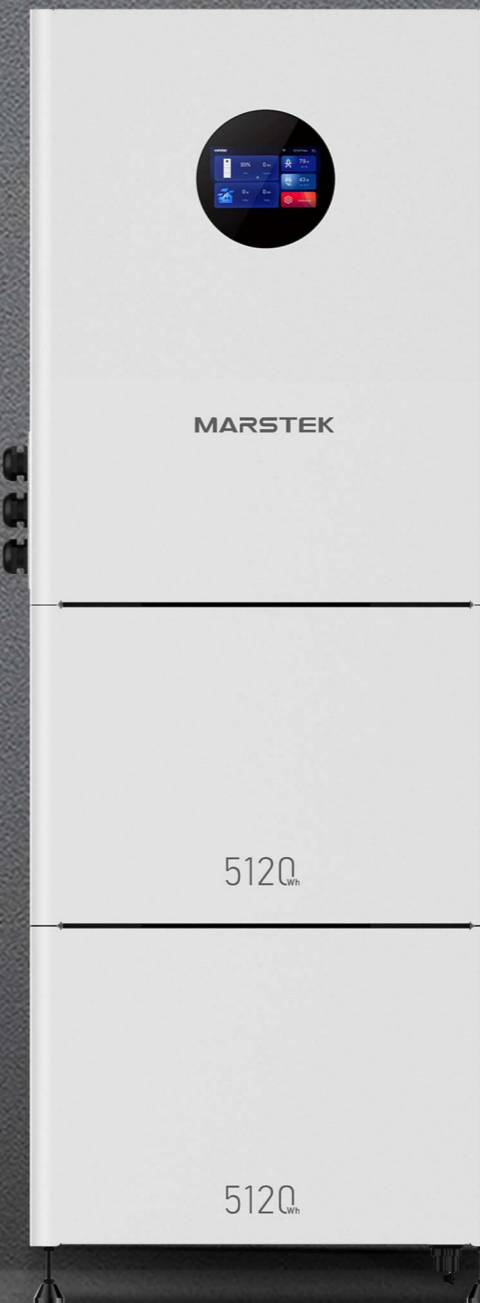
With the mission of "making electricity ubiquitous", Marstek is committed to building a global energy storage brand. Through continuous technological innovation, it provides various 24/7 scenario power solutions to global users, becoming the most trustworthy energy storage brand in the world.

# MARS RESIDENTIAL ENERGY STORAGE SYSTEM

10.2kWh~30.7kWh

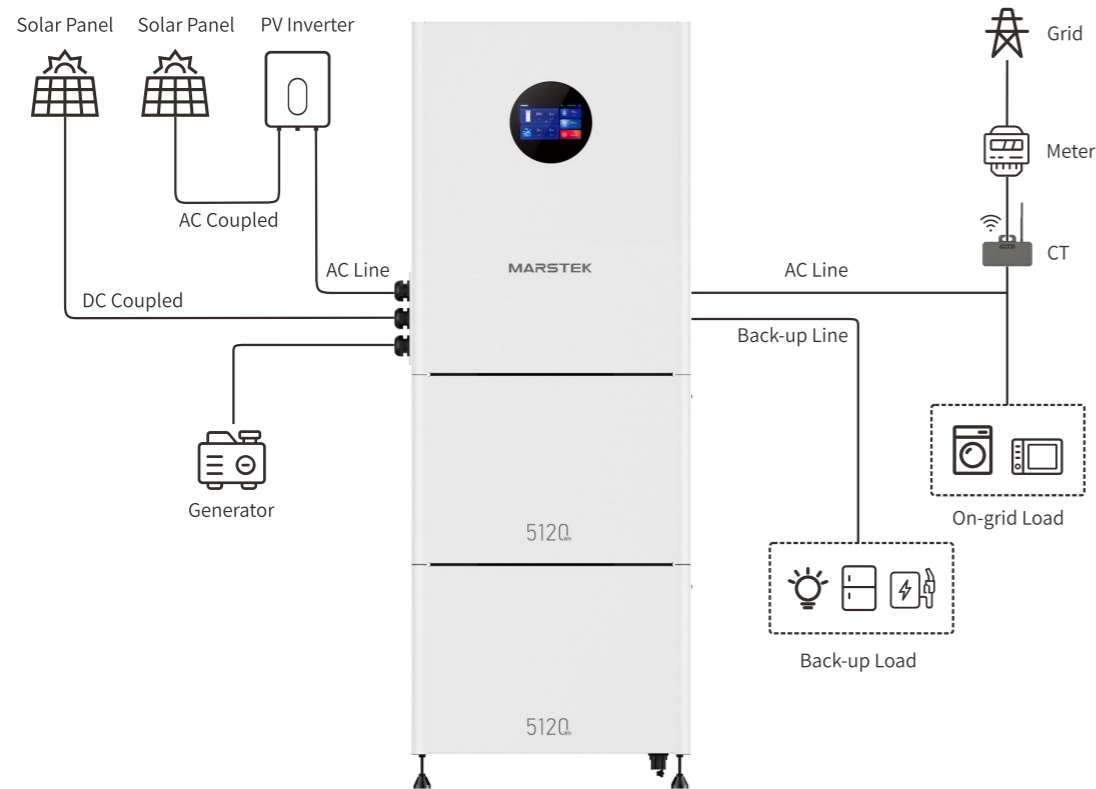
## ADVANTAGES

- Multi-machine parallel connection supported. Maximum Power to 30.7 kWh.
- LiFePO<sub>4</sub> cells, 5120Wh supplied by one battery module, Max. 6 units capacity is 30.7kWh.
- 80% capacity powered within 1-hour charging time by PV 4.6kW~15.6kW fast charging, 3.2kVA~13.2kVA AC Output supported.
- Cable-free stacked design by connector.
- Anti-Islanding effect supported that can shut them off and disconnect them from the grid during a power outage.
- App Remote Control & Monitor supported.



## RESIDENTIAL ESS APPLICATION

- Mars residential energy system makes green energy 24/7 available.
- Store daytime energy from photovoltaic and makes it available at any time.
- Peak shaving and valley filling, intelligent purchase or sale of electricity from the power grid, save electric bills and earn money.
- Rural areas that the power grid hardly covers can have stable and cheap electricity from PV systems by using ESS.
- UPS power function supported when an unexpected interruption occurs.
- Higher fuel efficiency compared with oil-fired power generation.



## SOLAR BATTERY STORAGE & BACKUP SYSTEM

### AC-COUPLED STORAGE SYSTEM



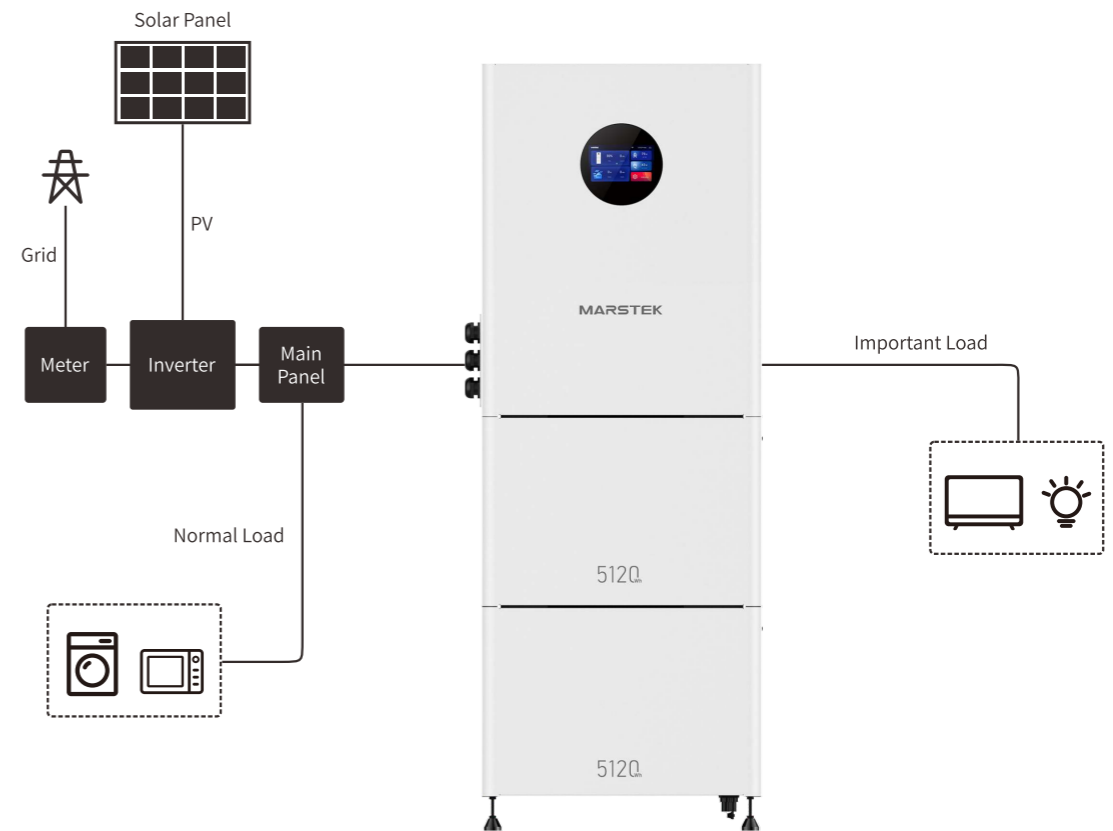
Fearless of  
Power Outage



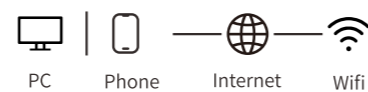
Easily Cope with Various  
Weather Conditions



Keep Appliances Running  
Seamlessly

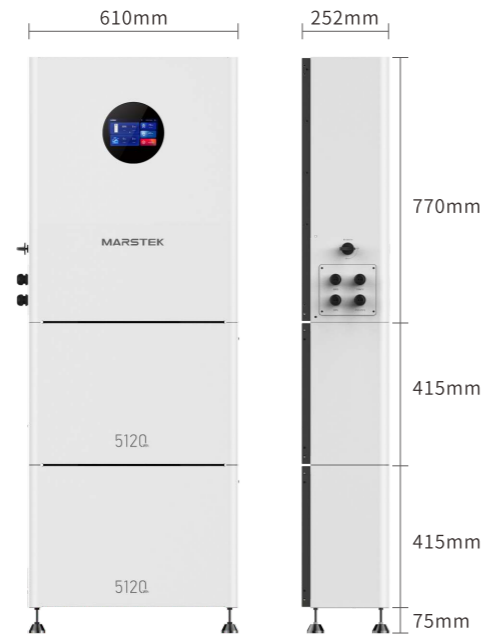


- User has already installed PV energy system at home, Mars energy storage system can work as home power backup directly, you can DIY quickly instead of waiting for qualified electrician.
- No need communication with PV inverter you already installed, no need any change for the existing PV energy system.



# SINGLE-PHASE ESS

## SPECIFICATIONS

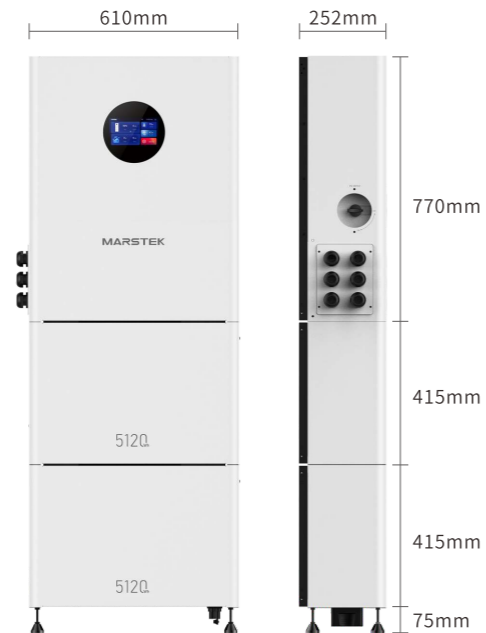


Model	M3K6L+P5000L Pro	M4K6L+P5000L Pro	M6KL+P5000L Pro
<b>PV Input</b>			
MAX.DC Input Power	4.6kW	6kW	7kW
NO.MPPT Tracker	2/1		
MPPT Range	125V~500V / 360V		
MAX.DC Input Voltage	550V		
MAX.Input Current	14A*2		
<b>AC Output (On-Grid)</b>			
Rated Active Power	3.6kW	4.6kW	6kW
Max. Apparent Power	3.96kVA	5.06kVA	6.6kVA
Output Voltage Range	230V / 176V~270V		
Output Frequency	50Hz / 60Hz		
Nominal AC Current	16A	20A	26A
Max.AC Current	16A	20A	26A
Max.AC Current From Grid	16A	20A	26A
Output Power Factor	0.8leading~0.8lagging		
OutPut THDI	< 3%		

Model	M3K6L+P5000L Pro	M4K6L+P5000L Pro	M6KL+P5000L Pro
<b>AC Output (Back-Up)</b>			
Rated Active Power	3.6kW	4.6kW	6kW
Max. Apparent Power	3.96kVA	5.06kVA	6.6kVA
Nominal Output Voltage L-N/L1-L2	230V		
Nominal Output Frequency	50Hz		
Output THDU	< 2%		
<b>Efficiency</b>			
Europe Efficiency	≥97%		
MAX. Battery to Load Efficiency	≥97.6%		
<b>General info</b>			
Dimension	610*252*(770+415*N+75)mm		
Weight	34kg(Inverter)+56kg*N(Power Module)		
Battery Type	LiFePO <sub>4</sub>		
Cooling Strategy	Natural Convection		
Standby Power	<2W (Work) / <50mW (Sleep)		
Protection Rated	IP65		
Altitude	≤2000m		
Operating Temperature Range	0°C~50°C		
Humidity	5%~95%		
Display	APP / TFT Screen		
Communication Interface	RS485 / CAN		
Warranty	10 Years		
<b>Compliance</b>			
Safety	IEC 62109 / IEC62040		
	ANSI / CAN / UL1973:2022		
	VDE2510-50		
	CEEMCEN61000-6-1 / 2 / 3 / 4:2017		
	CELVD EN62477-1		
EMC	EN61000-6-1 / -2 / -3 / -4		
Grid Connection Standards	AS4777.2 / CEI0-21 / G99 / G100 / NRS 097 / EN50549 / PEA		
Transportation	UN38.3 (ST / SG / AC.10 / 11 / Rev.7 / Amend.1PartIIsub-section 38.3)		

# THREE-PHASE ESS

## SPECIFICATIONS

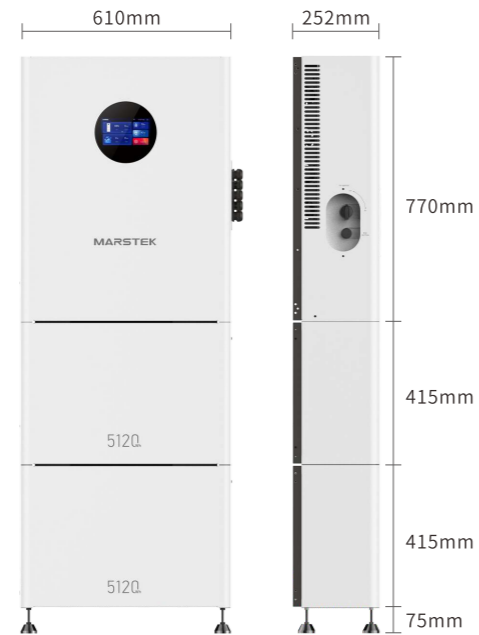


Model	M8KH3+P5000H Pro	M10KH3+P5000H Pro	M12KH3+P5000H Pro
<b>PV Input</b>			
MAX.DC Input Power	11kW	13kW	15.6kW
NO.MPPT Tracker	2/1		
MPPT Range	125V~850V		
MAX.DC Input Voltage	1000V		
MAX.Input Current	13A*2		
<b>AC Output (On-Grid)</b>			
Rated Active Power	8kW	10kW	12kW
Max. Apparent Power	8.8kVA	11kVA	13.2kVA
Output Voltage Range	400V / 360V~440V		
Output Frequency	50Hz / 60Hz		
Nominal AC Current	12.7A	15.8A	19.0A
Max.AC Current	12.7A	15.8A	19.0A
Max.AC Current From Grid	12.7A	15.8A	19.0A
Output Power Factor	0.8leading~0.8lagging		
OutPut THDI	< 3%		

Model	M8KH3+P5000H Pro	M10KH3+P5000H Pro	M12KH3+P5000H Pro
<b>AC Output (Back-Up)</b>			
Rated Active Power	8kW	10kW	12kW
Max. Apparent Power	8.8kVA	11kVA	13.2kVA
Nominal Output Voltage L-N/L1-L2	400V		
Nominal Output Frequency	50Hz		
Output THDU	<2%		
<b>Efficiency</b>			
Europe Efficiency	97.90%	98.20%	98.20%
MAX. Battery to Load Efficiency	97.20%	98.50%	98.50%
<b>General info</b>			
Dimension	610*252*(770+415*N+75)mm		
Weight	34kg(Inverter)+56kg*N(Power Module)		
Battery Type	LiFePO <sub>4</sub>		
Cooling Strategy	Natural Convection		
Standby Power	<2W (Work) / <50mW (Sleep)		
Protection Rated	IP65		
Altitude	≤2000m		
Operating Temperature Range	0°C~50°C		
Humidity	5%~95%		
Display	APP / TFT Screen		
Communication Interface	RS485 / CAN		
Warranty	10 Years		
<b>Compliance</b>			
Safety	IEC 62109 / IEC62040		
	ANSI / CAN / UL1973:2022		
	VDE2510-50		
	CEEMCEN61000-6-1 / 2 / 3 / 4:2017		
	CELVD EN62477-1		
EMC	EN61000-6-1 / -2 / -3 / -4		
Grid Connection Standards	AS4777.2 / CEI0-21 / G99 / G100 / NRS 097 / EN50549 / PEA		
Transportation	UN38.3 (ST / SG / AC.10 / 11 / Rev.7 / Amend.1PartIIsub-section 38.3)		

# SPLIT-PHASE SERIES

## SPECIFICATIONS



Model	M5KLNA+P5000L Pro	M6KLNA+P5000L Pro	M7KLNA+P5000L Pro	M8KLNA+P5000L Pro
<b>PV Input</b>				
MAX.DC Input Power	7.5kW	9kW	12kW	12kW
NO.MPPT Tracker	4			
MPPT Range	120V~500V			
MAX.DC Input Voltage	500V			
MAX.Input Current	12A			
<b>AC Output (On-Grid)</b>				
Rated Active Power	5kVA	6kVA	7.6kVA	8kVA
Max. Apparent Power	5.5kVA	6.6kVA	8.4kVA	8.8kVA
Output Voltage Range	110V-120V/220V-240V split phase,1Ø,230 1 phase			
Output Frequency	50Hz/ 60Hz (45Hz to 54.9Hz/55Hz to 65Hz)			
Nominal AC Current	21.7A	26A	33A	34.8A
Max.AC Current	24A	28.8A	36.5A	38.3A
Max.AC Current From Grid	35A	35A	50A	50A
Output Power Factor	0.8leading~0.8lagging			
OutPut THDI	< 2%			

Model	M5KLNA+P5000L Pro	M6KLNA+P5000L Pro	M7KLNA+P5000L Pro	M8KLNA+P5000L Pro
<b>AC Output (Back-Up)</b>				
Rated Active Power	5kVA	6kVA	7.6kVA	8kVA
Max. Apparent Power	5.5kVA	6.6kVA	8.4kVA	8.8kVA
Nominal Output Voltage L-N/L1-L2	120V / 240V			
Nominal Output Frequency	60Hz			
Output THDU	<2%			
<b>Efficiency</b>				
Europe Efficiency	≥97.8%			
MAX. Battery to Load Efficiency	≥97.2%			
<b>General Info</b>				
Dimension	610*252*(770+415*N+75)mm			
Weight	62kg(Inverter)+53kg*N(Power Module)			
Cooling Strategy	Natural Convection			
Standby Power	<2W(Work)/<50mW(Sleep)			
Protection Rated	IP65			
Altitude	≤2000m			
Operating Temperature Range	0°C~50°C			
Display	APP/TFT Screen			
Communication Interface	RS485, CAN			
Warranty	10 Years			
<b>Battery Module(Single Unit)</b>				
Capacity	5120Wh			
Battery Type	LiFePO <sub>4</sub>			
Voltage	51.2V			
Current	100A			
DoD	90%			
Dimension(L*W*H)	610*252*415mm			
Weight	51kg			
Operation Voltage	44V~58.4V			
Charge Voltage	52.5V~59.4V			
Charge/Discharge Current	100A/100A			
Peak Charge/Discharge Current	115A(Peak@10s)/130A(Peak@1s)			
<b>Compliance</b>				
Safety	UL 9540A,UL9540,UL1741&UL1741 SA All Options, UL1699B, CSA C22.2, UL62109-1, UL1998			
EMC	FCC Part 15 Class B			
Grid Connection Standards	IEEE 1547, IEEE 2030.5, Hawaii Rule 14H, Rule 21 Phase I, II, III			
Transportation	UN38.3(ST/SG/AC.10 /11/ Rev.7 /Amend.1 Part III Sub-section 38.3)			

# MARS BATTERY ENERGY STORAGE SYSTEM

10.2kWh~30.7kWh



## ADVANTAGES

- Flexible capacity options, from 10.2kWh-30.7kWh.
- Excellent safety of LiFePO<sub>4</sub> battery used. certified by IEC, CE Lab.
- Compatible with most of the branded inverters in the market.
- Cycle life > 6000+.
- Easy installation with floor stand and wall mount (optional).
- Modulize design for easy assembly and overheating control.
- IP65 protection rated.





## CLASS A BATTERY CELL, LONG LIFECYCLE, ULTRA-SAFE

Developed with own LiFePO<sub>4</sub> cell to ensure high safety, 50Ah large monomer laminated cells enable fewer battery cells used, longer lifecycle expectancy, more than 6000 cycles with 90% DoD, less heat, and less than 2mΩ internal resistance.



## VARIOUS CAPACITY ON YOUR DEMAND

10.2kWh / 15.3kWh / 20.4kWh / 25.6kWh / 30.7kWh Capacity based on 2-6 battery modules combination.

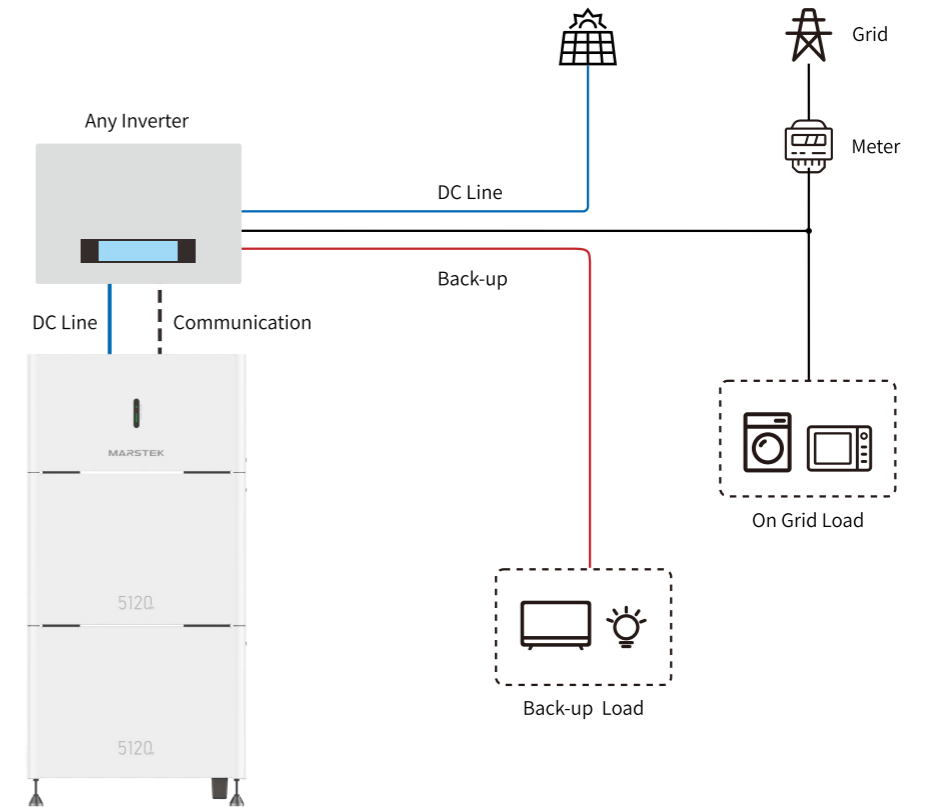


## WIDE COMPATIBILITY MATCHING LEADING INVERTER BRAND

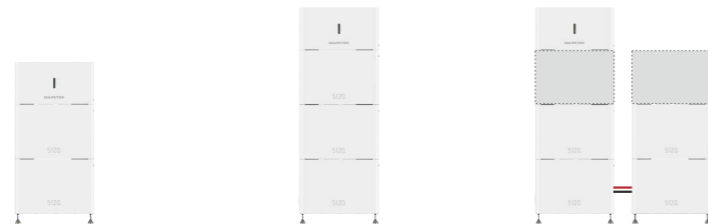
Inverter Brands Supported By Battery Energy Storage System



## WIDE COMPATIBILITY MATCHING LEADING INVERTER BRAND

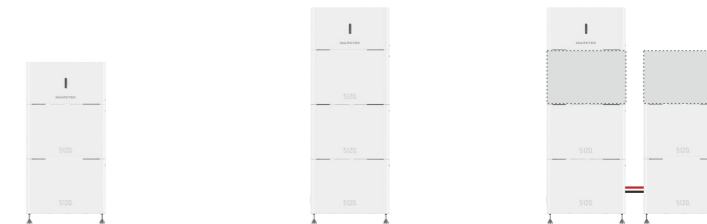


## LOW-VOLTAGE BESS SPECIFICATIONS



Battery Module	1*TC5000L, 2*T5000L	1*TC5000L, 3*T5000L	1*TC5000L, 4-6*T5000L
Module No.	2	3	N(3<N≤6)
Energy Capacity	10.2kWh	15.3kWh	5120Wh*N
Dimension	595*165*1225mm	595*165*1640mm	595*165*(490+415*N)mm
Weight	100kg	145kg	190kg~280kg
Max Charge(Battery Pack Clusters)	200A	200A	200A
Max Discharge(Battery Pack Clusters)	200A	200A	200A
<b>General Info</b>			
Battery Type	LiFePO <sub>4</sub>		
Nominal Voltage	51.2V		
Battery Management System	OVP,UVP,OCP,SCP,OTP,UTP,etc		
Voltage Range for Battery Modules	44V~58.4V		
Charge Volatge	52.5V~59.4V		
Peak Charge Current	115A (Peak@10s) (Single Battery Module)		
Peak Discharge Current	130A(Peak@1s) (Single Battery Module)		
DoD	90%		
Network Interface	RS485/Can		
Parallel Connection No.	2~6		
Cyclelife	6000+		
Warranty	10 Years		
<b>Environment</b>			
Altitude	≤2000m		
Storage Humidity	5%~95%		
Protection Rated	IP65		
Storage Temperature	-20°C~60°C		
Discharge Temperature	0°C~50°C		
Charge Temperature	0°C~50°C		
<b>Compliance</b>			
Safety	CB IEC62619:2017		
	IEC 63056:2020		
	CE LVD EN62477-1		
	CE EMC EN61000-6-1 / 2 / 3 / 4:2017		
	ANSI / CAN / UL 1973:2022		
	UK Conformity Assessed		
	VDE 2510-50		
Transportation	UN38.3 (ST / SG / AC.10 / 11 / Rev.7 / Amend.1 Part III Sub-section 38.3)		
Health & Environment	RoHs Directive2011 / 65 / EU / 2015 / 863		

## HIGH-VOLTAGE BESS SPECIFICATIONS

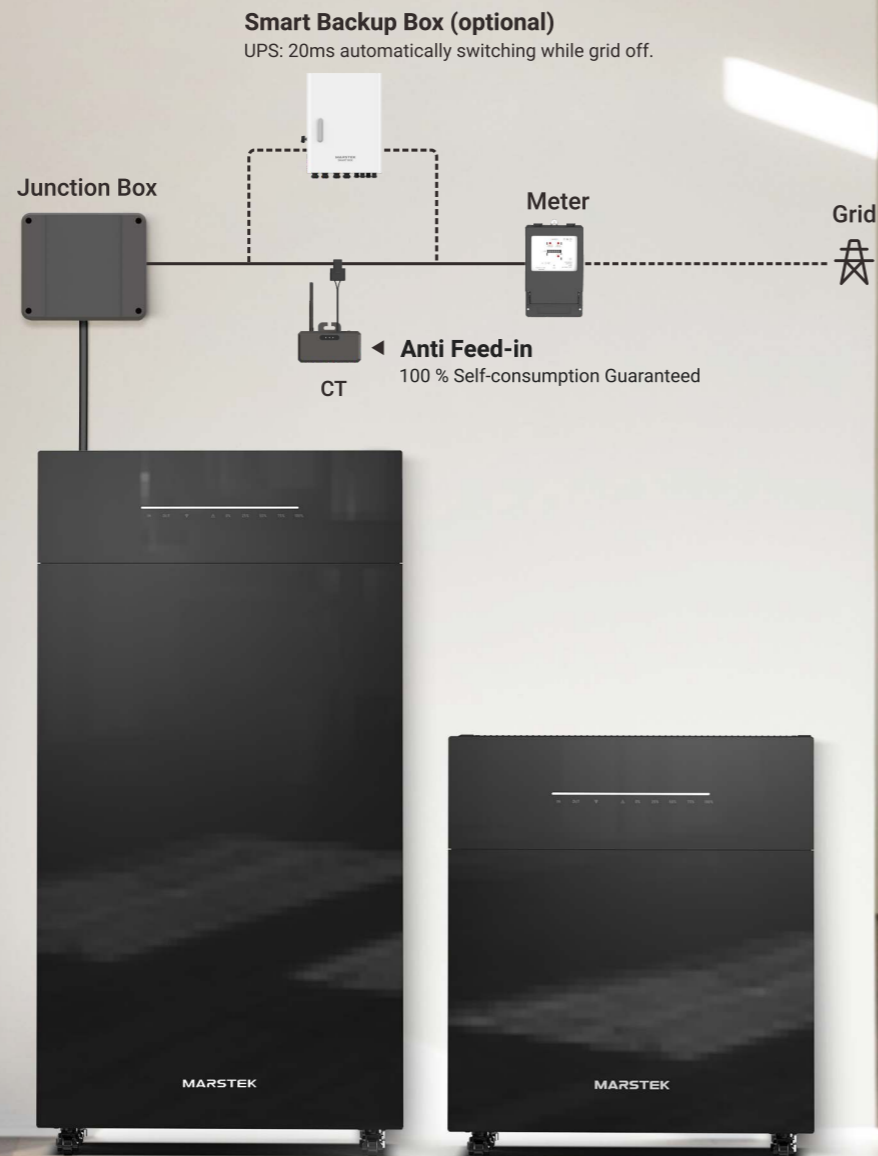


Battery Module	1*TC5000H, 2*T5000H	1*TC5000H, 3*T5000H	1*TC5000H, 4-6*T5000H
Module No.	2	3	N(3<N≤6)
Energy Capacity	10.2kWh	15.3kWh	5120Wh*N
Dimension	595*165*1225mm	595*165*1640mm	595*165*(490+415*N)mm
Weight	108kg	153kg	198kg~288kg
Max Charge(Battery Pack Clusters)	50A	50A	50A
Max Discharge(Battery Pack Clusters)	50A	50A	50A
<b>General Info</b>			
Battery Type	LiFePO <sub>4</sub>		
Nominal Voltage	102.4V(Single Battery Module)		
Battery Management System	OVP,UVP,OCP,SCP,OTP,UTP,etc		
Voltage Range for Battery Modules	(92.8V~116.8V) *N(2≤N≤6)		
Charge Volatge	(96V~113.6V) *N(2≤N≤6)		
Peak Charge Current	60A(Peak@6s)		
Peak Discharge Current	60A(Peak@6s)		
DoD	90%		
Network Interface	RS485/Can		
Series Connection No.	2~6		
Cyclelife	6000+		
Warranty	10 Years		
<b>Environment</b>			
Altitude	≤2000m		
Storage Humidity	5%~95%		
Protection Rated	IP65		
Storage Temperature	-20°C~60°C		
Discharge Temperature	0°C~50°C		
Charge Temperature	0°C~50°C		
<b>Compliance</b>			
Safety	CB IEC62619:2017		
	IEC 63056:2020		
	CE LVD EN62477-1		
	CE EMC EN61000-6-1/2/3/4:2017		
	ANSI/CAN/UL 1973:2022		
	UK Conformity Assessed		
	VDE 2510-50		
Transportation	UN38.3 (ST/SG/AC.10/11/Rev.7/Amend.1 Part III sub-section 38.3)		
Health & Environment	RoHs Directive2011/65/EU/2015/863		

# AC COUPLE

2.5kW / 5kW SINGLE PHASE

7.5kW THREE PHASE



### Flexibility and Scalability

Easily added to an existing photovoltaic system without any modifications to the existing DC circuit.

### Strong Adaptability

Work with any type of inverter, not limited to specific DC-coupled inverters.

### Powerful Feature

2.5kW~7.5kW AC Input & Output supported, easily complete household electricity solutions for multiple scenarios.

### Grid-Tied and Off-Grid Operation

Operate in both grid-tied and off-grid (i.e., power outage or grid failure) situations, milliseconds switching(< 20ms) while grid power cut off.

### Peak Shaving and Valley Filling

During periods of high electricity prices, AC Couple can use the power stored in the battery for supply or sell excess energy to the grid, realizing energy recycling; during low electricity price stages, it can use grid power and store electricity, thereby saving electricity costs.

## SPECIFICATIONS



Model	BIE5-2500	BIE10-5000	BIE10-7500
<b>Battery Info</b>			
Rated Voltage	51.2V (16S)	460.8V (144S)	460.8V (144S)
Capacity	5120Wh	10600Wh	10600Wh
Life Cycle (Times)	>6000(25°C)		
Battery Type	LiFePO <sub>4</sub>		
DoD	90%		
Current	60A	23A	23A
<b>AC Input / Output (On Grid)</b>			
Rated Input / Output Power	2.5kW	5kW	7.5kW
Operating Phase	L/N/PE	L/N/PE	3W/N/PE
Rated Grid Voltage	220V/230V	220V/230V	380V/400V
Grid Voltage Range	187V~253V	187V~253V	324V~438V
Rated Grid Frequency	50Hz/60Hz		
Rated Grid Input/Output Current	11.4A / 10.9A	22.8A / 21.8A	11.4A / 10.9A
Max.Input/Output Current	13.4A	26.8A	13.4A
Power Factor	> 0.99 (Default) / 0.8 leading~0.8 lagging (Adjustable)		
THDi	<3%		
<b>AC Output (Off Grid)</b>			
Rated Off-grid Output Power	2.5kW	5kW	7.5kW
Max.Apparent Output Power	2.5kVA	5kVA	7.5kVA
Max.Output Current	11.3A	22.8A	34A
Rated Output Voltage	220V		
Rated Output Voltage Freq.	50Hz/60Hz		
THDu(Linear Load)	<3%		

## SPECIFICATIONS



Model	BIE5-2500	BIE10-5000	BIE10-7500
<b>Efficiency</b>			
Battery-AC Side Max.Efficiency	>93.5%	>96.5%	>96.5%
<b>Protection</b>			
Protection Level	I		
Overvoltage/Voltage Withstand Level	DC II / AC III	AC III	AC III
<b>General</b>			
Isolation Type	Non-Isolated		
Operating Temperature Range	-20°C~ +60°C (Storage -30°C~ +85°C)		
Relative Humidity	0-95%		
Ingress Protection	IP65		
Cooling Strategy	Natural Convection		
Max.Operating Altitude	2000m		
On-grid Connection Standard	VDE4105		
Regulatory/EMC	IEC/EN 62106-1/-2, EN 61000-6-2/-3		
Dimension	640*228*700mm	640*228*1200mm	640*228*1200mm
Weight	60±0.5kg	95±0.5kg	95±0.5kg
<b>Additional Data</b>			
On-grid AC Connection	Three-wire Household Plug (Euro16A)	Three-wire Household Plug (Euro16A) / 30A Aviation Socket	Five-wire Aviation Socket
Display	LED		
Supported Communication Interface	WIFI		

# SOLAR MICRO INVERTER



## Powerful Features

240W\*2~670W\*2 Recommended PV Input  
600W-800W-1000W AC Output



## High Efficiency

99.8% MPPT Efficiency  
96.5% Peak Efficiency



## High Safety

IP67 Waterproof  
10 Years Warranty

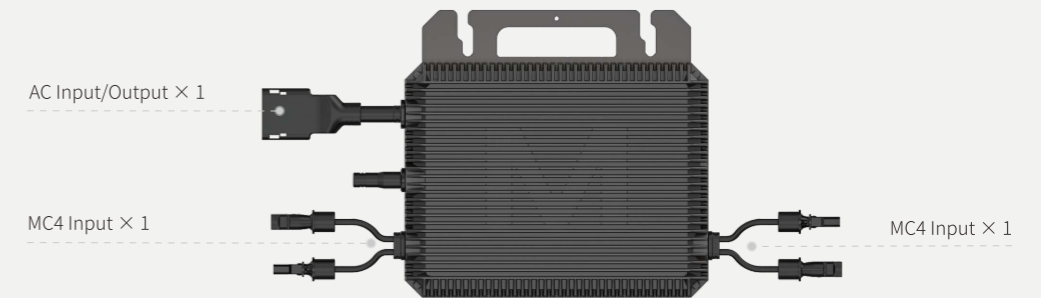


## Easy Installation

MC4 Plug & Play



## SPECIFICATIONS



Model		I-0600	I-0800	I-1000
PV(DC) Input	Commonly used module power (W)	240W to 405W+	320W to 540W+	400W to 670W+
	Number of MPPTS	2		
	Number of Inputs per MPPT	1		
	MPPT Range	25V~55V		
	Start Voltage	22V		
	Operating Voltage Range	16~60V		
	Max.Input Voltage	60V		
	Max.Input Current(1 pc)	10.5A	12.5A	14.5A
	Max.Input Short Circuit Current(1 pc)	20A		
AC Output	Rated Output Power	600VA	800VA	1000VA
	Rated Output Current	2.50A/2.61A/2.73A	3.33A/3.48A/3.64A	4.17A/4.35A/4.55A
	Rated Output Voltage	220V/180V~275V 230V/180V~275V 240V/180V~275V		
	Output Frequency / Range	50Hz/45~55Hz 60Hz/55~65Hz		
	Output Power Factor	>0.99		
	Total Harmonic Distortion(THDI)	<3%		
Energy Efficiency	Peak Efficiency	96.50%		
	MPPT Efficiency	99.80%		
	Night-Time Power Consumption	<50		
General Info	Ambient Temperature Range	-40°C~ +65°C		
	Dimensions	270*255*41mm		
	Weight	3.2kg		
	Protection Rated	IP67		
	Cooling Method	Natural heat dissipation		
Addition	Communication	WIFI / 4G		
	Monitoring	APP / Web		
	Warranty	10 Years		

# ALL-IN-ONE BALCONY ENERGY STORAGE SYSTEM

- Efficient energy use. Solar energy can be directly converted into electricity for efficient energy utilization. And it supports 2000W PV Input and 1000W AC Output.
- Easy installation. Compact design, easy installation, no need for complex construction work, easy to install on balconies.
- Intelligent monitoring. Equipped with an intelligent monitoring system, it can monitor information such as photovoltaic power generation, battery status and energy consumption at anytime.



## SPECIFICATIONS



	Model	HIE2.5-1000-L4-2000	HIE5-1000-L4-2000
Battery Info	Capacity	2560Wh	5120Wh
	Cell Chemistry	LiFePO <sub>4</sub>	
	Lifecycle	6000+ Cycles to 80% Capacity	
	DoD	90%	
	Current	50A	
	Battery Management System	OVP, UVP, OCP, SCP, OTP, UTP, etc	
MC4*2 PV Input	Max. Input Power	500W*4	
	MPPT Tracker	4	
	Voltage Range	25V~55V	
	Max. Input Voltage	60V	
	Max. Input Current	14.5A*4	
	MPPT Effi	99.80%	
AC Output (On Grid)	Rated Power	1kW	
	Voltage Range	220V~230V	
	Output Frequency	50Hz/60Hz	
	Nominal AC Current	4.54A/4.34A	
	Max. Output Current	5.34A	
	Output Power Factor	> 0.99	
	THDi	< 3%	
Efficiency	MAX. Battery to Load Efficiency	>96.5%	
General	Dimensions	417*265*228mm	538*365*268mm
	Weight	15±0.5kg	29±0.5kg
	Material	SPCC	
	Operating Temp.	-20 ~ +60°C (Storage -30 ~ +85°C)	
	Protection Rated	IP65	
	Cooling Strategy	Natural Convection	
	Altitude	≤2000m	
	Humidity	0~95%	
	Wireless	BT5.2 + WIFI 2.4G	
Compliance	Grid Connection Standards	VDE4105	
	Regulatory	IEC/EN 62109-1/2	
	EMC	EN 61000-6-1/-2/-3/-4	

# SMART METER CT001

**Current sensing:**

After connecting the CT001 to the WIFI network, Balcony Energy Storage will automatically find the link to the device to read the power of the grid and realize intelligent power supplementation.

**Strong adaptability:**

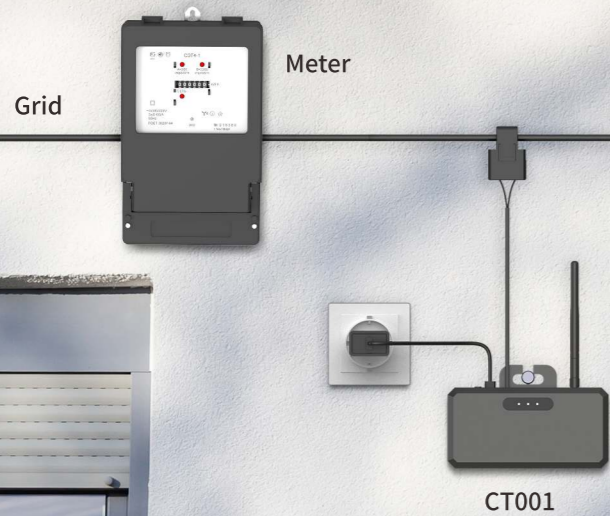
CT001 is suitable for all kinds of power systems and equipment, including power plants, substations, industrial electricity, etc., it has strong adaptability.

**Automatic mode:**

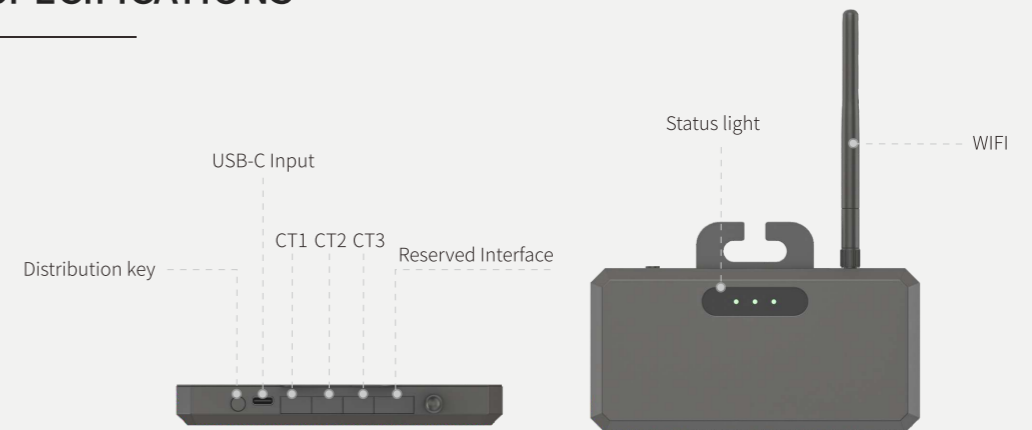
Choose the automatic mode in the discharge setting of the Balcony Energy Storage APP. The balcony energy storage will automatically find the CT001 in the network and read the load of the home grid to achieve intelligent and dynamic output.

**High-quality internet signal:**

CT001 osupports 2.4G WIFI network.



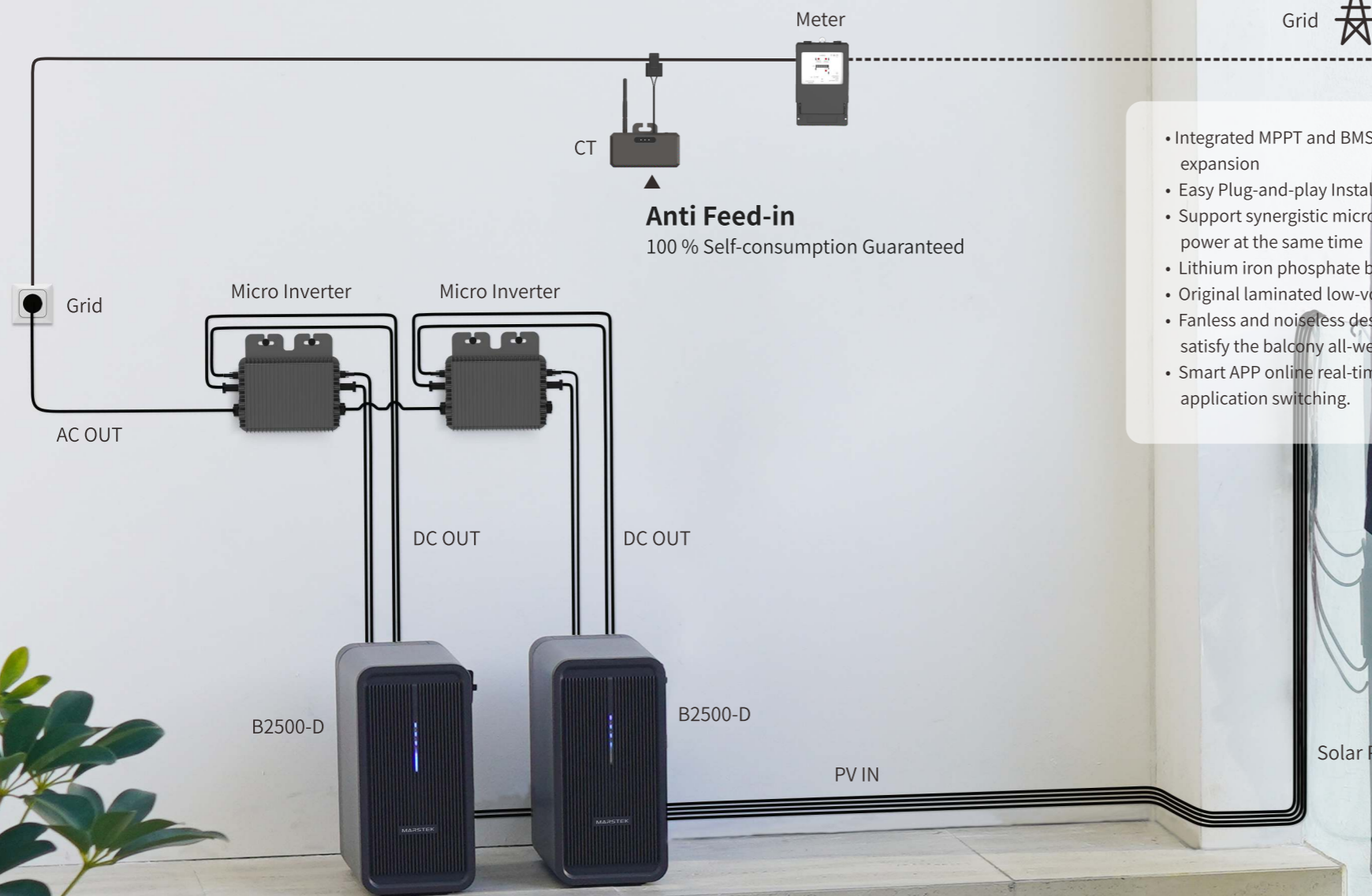
## SPECIFICATIONS



Model	CT001
Wireless connection	WIFI(2.412~2.484 GHz) & Bluetooth 5.2
Power supply	Type-C (5V/1A)
Status display	LED
Dimension(without antenna)	140*89.2*17.3mm
Weight	0.5kg
Altitude	≤2000m
Operating Temperature	-40°C~60°C
Storage Humidity	5%~95%

# SATURN SERIES BALCONY SOLAR BATTERY SYSTEM

BALCONY ESS-B2500-D



- Integrated MPPT and BMS power management technology, supporting 2240Wh-6720Wh capacity expansion
- Easy Plug-and-play Installation, compatible with 99% of solar panels and micro inverters in the market
- Support synergistic micro-inverters for string formation, expand capacity and support greater output power at the same time
- Lithium iron phosphate battery, 7-fold safety protection, 6000+ cycle times, 10 years lifespans.
- Original laminated low-voltage large batteries, ultra-low self-consumption
- Fanless and noiseless design, IP65 waterproof, high temperature resistant and fireproof materials, fully satisfy the balcony all-weather field
- Smart APP online real-time monitoring, multiple modes can be selected to facilitate multi-scenario application switching.





**EXPANDABLE CAPACITY**  
2240Wh~6720Wh



**HIGH POWER**  
1000W PV Input  
800W DC Output



**POWER ANYTIME**  
Backup The Excess Solar Energy  
to Provide Energy at Night



**DIY INSTALLATION**  
Creativity Design for SOC Display  
Plug-And-Play



**HIGH SAFETY**  
LiFePO<sub>4</sub> Battery  
IP65 Waterproof



**LONG LIFESPAN**  
Over 10 Years  
Lifecycle 6000+Times



## SPECIFICATIONS



Model		B2500-D
GENERAL	Capacity	2240Wh
	Cell Chemistry	LiFePO <sub>4</sub>
	Lifecycle	6000+ Cyclesto 80% Capacity
	Storage Temp.	14°F~131°F(-10°C~55°C)
	Operating Temp.	14°F~104°F(-10°C~40°C)
	Material	ABS + PC + Metal
	Weight	20±0.5kg
	Dimensions	350*295*175mm
	Battery Management System	OVP, UVP, OCP, SCP, OTP, UTP, etc
	Wireless	BT5.2 + WIFI 2.4G
MC4*2 PV INPUT	Power	500W*2 Max
	Voltage Range	12V~59V
	Max. Input Current	13.5A*2
MC4*2 OUTPUT	Power	400W*2 Max
	Voltage Range	16V~40V
	Max. Output Current	15A Max

# P2500D EXTRA BATTERY FOR B2500D

2240Wh



P2500D

B2500D

## SPECIFICATIONS



Model		P2500D
GENERAL	Capacity	2240Wh
	Cell Chemistry	LiFePO <sub>4</sub>
	Nominal Current	50A
	Lifecycle	6000+ Cycles to 80% Capacity
	Storage Temp.	-4°F~140°F(-20°C~60°C)
	Operating Temp.	32°F~122°F(0°C~50°C)
	Material	ABS + PC / Metal
	Weight	18±0.5kg
	Dimensions	295*175*350mm
	Battery Management System	OVP, UVP, OCP, SCP, OTP, UTP, etc.
INPUT	Battery Voltage Range	44.8V
	Charge Voltage	52.5V
	Charge Current	50A
OUTPUT	Discharge Current	100A
	DoD	90%

# SATURN SERIES Balcony Solar Battery System

BALCONY ESS-B1200



## SPECIFICATIONS



Model		B1200
GENERAL	Capacity	1030Wh
	Cell Chemistry	LiFePO <sub>4</sub>
	Lifecycle	6000+ Cycles to 80% Capacity
	Storage Temp.	14°F~131°F(-10°C~55°C)
	Operating Temp.	14°F~104°F(-10°C~40°C)
	Material	Metal
	Weight	11.4±0.5kg
	Dimensions	393*190*204mm
	Battery Management System	OVP, UVP, OCP, SCP, OTP, UTP, etc
	Wireless	BT5.2 + WIFI 2.4G
MC4 PV INPUT	Power	500W Max
	Voltage Range	12V~59V
	Max. Input Current	13.5A
DC OUTPUT	Power	400W Max
	Voltage Range	16V~40V
	Max. Output Current	15A Max

# M3600 & M5000 SOLAR GENERATOR

3600W~5000W AC Output / 3600W~5000W AC Input  
3584Wh~15360Wh / 7500W Max PV Input



#### Expandable Capacity

Max. two expansion battery modules  
The max. capacity is 15.36kWh.



#### Multiple High Output

Max. 5000W output, 5 AC pure sine  
wave discharging interfaces.



#### High-power PV Input

Support max. 7500W PV input  
2 array PV ports.



#### UPS Function Supported

Milliseconds switching(< 20ms) while  
grid power cut off.



#### Fast AC Charge

Max. 5000W AC Input. 1 hour  
charging about 80%.



#### Remote Control

The whole system can be viewed  
and controlled in real time through  
APP or browser.



#### IP65 Waterproof Design

IP65 waterproof grade. The waterproof  
design can prevent water from  
entering the top and around.



#### Easy Indoor/Outdoor Mobility

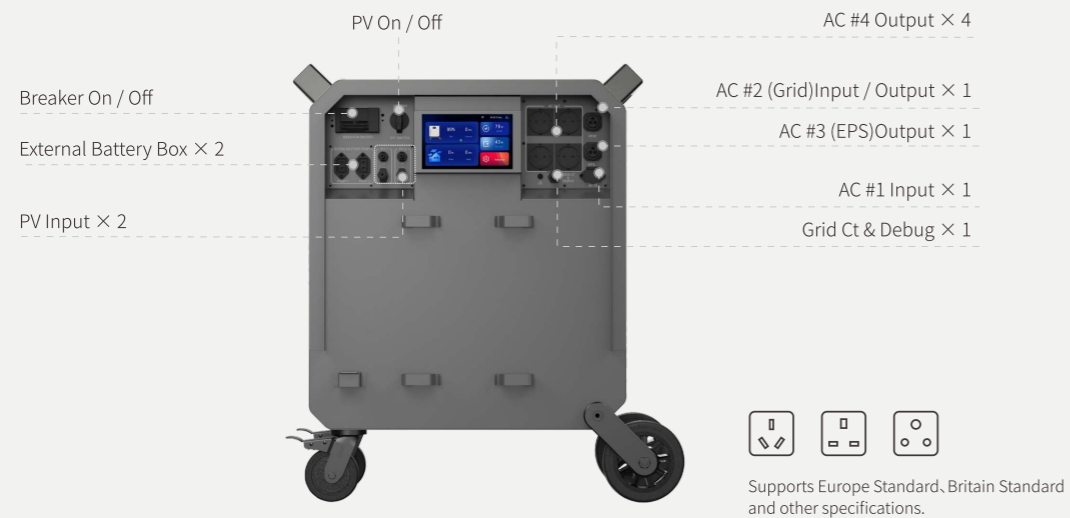
The big size & universal direction  
wheel design makes easily indoors  
and outdoors movements.



#### Ultra-pure Mute

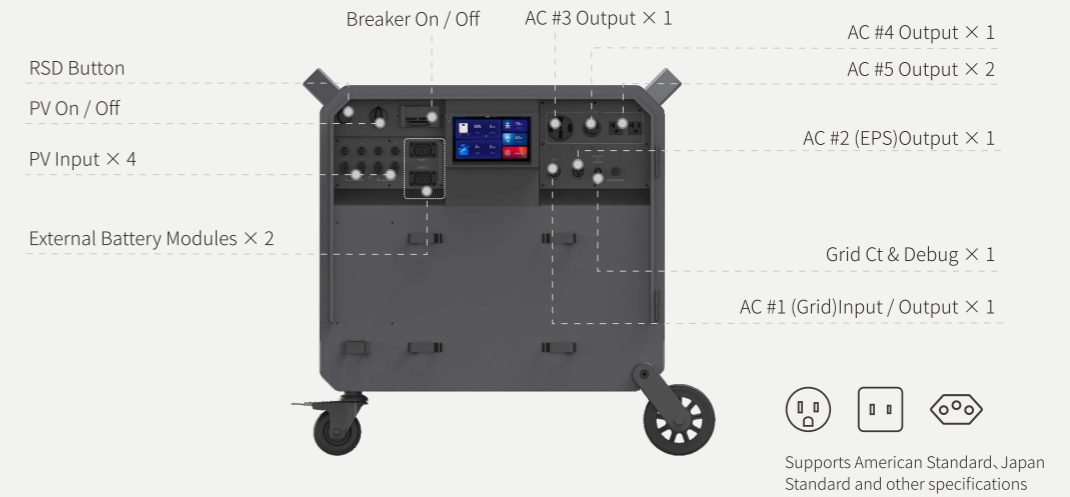
No cooling fan design, super quiet  
and noiseless.

## SPECIFICATIONS



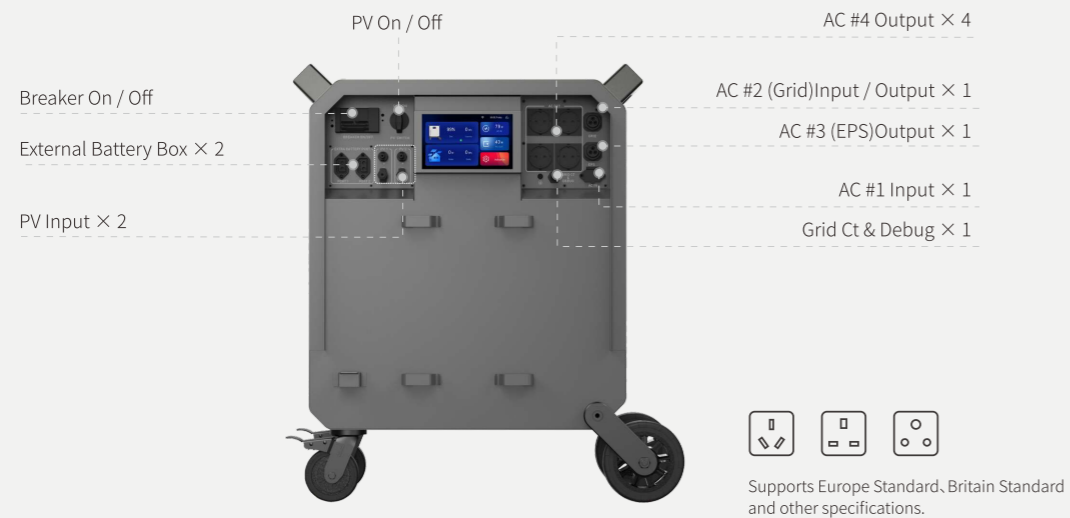
Model		M5000
GENERAL	Capacity	5120Wh*N(N≤3)
	Cell Chemistry	LiFePO <sub>4</sub>
	Nominal Current	100A
	Lifecycle	6000+ Cycles to 80% Capacity
	Indicator	APP/LED Screen/Web
	Storage Temp.	-4°F~140°F (-20°C~60°C)
	Operating Temp.	32°F~122°F (0°C~50°C)
	Material	Metal
	Weight	95±1kg
	Dimensions (With Base)	721*408*809mm
	Dimensions (Without Base)	651*408*670mm
	Battery Management System	OVP,UVP,OCP,SCP,OTP,UTP,etc
	Solar Charge System	MPPT Charge Controller
	INPUT	MC4 (Solar)
AC #1		2000W Max(220V~240V@50Hz/60Hz)
AC #2 (Grid)		5000W Max(220V~240V@50Hz/60Hz)
OUTPUT	AC #2 (Grid)	5000W Max(220V~240V@50Hz/60Hz)
	AC #3 (EPS)	5000W Max(220V~240V@50Hz/60Hz)
		Automatic Switchover Time<20ms
	AC #4	2000W Max for each(220V~240V@50Hz/60Hz), AC*4 ports total 5000W

## SPECIFICATIONS



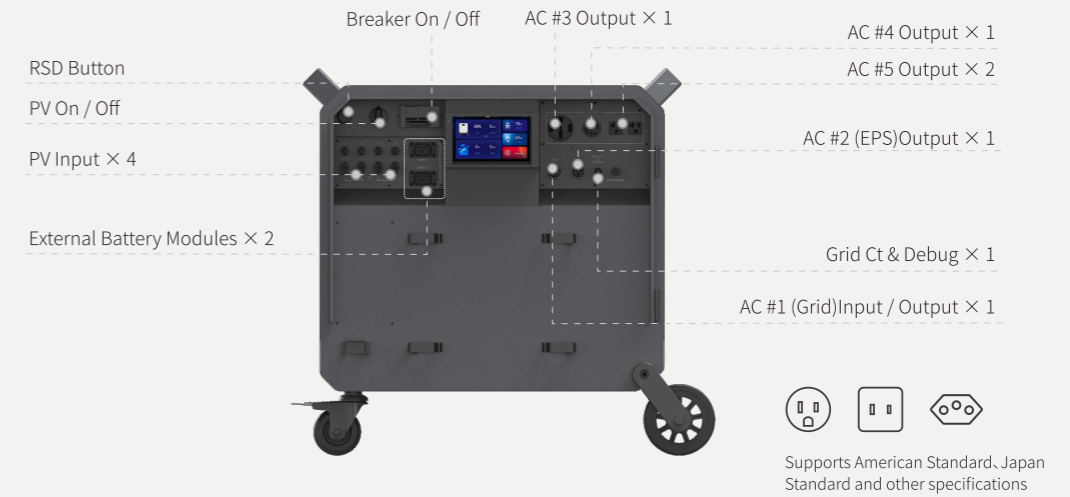
Model		M5000NA
GENERAL	Capacity	5120Wh * N (N≤3)
	Cell Chemistry	LiFePO <sub>4</sub>
	Nominal Current	100A
	Lifecycle	6000+ Cycles to 80% Capacity
	Indicator	APP/LCD Screen/Web
	Storage Temp.	-4°F~140°F (-20°C~60°C)
	Operating Temp.	32°F~122°F (0°C~50°C)
	Material	Metal
	Weight	130±0.5kg
	Dimensions (With Base)	790*439*809mm
	Dimensions (Without Base)	720*439*640mm
	Battery Management System	OVP,UVP,OCP,SCP,OTP,UTP,etc
	Solar Charge System	MPPT Charge Controller
	INPUT	MC4 (Solar)
AC #1 (Grid)		5000W Max(110-120/220-240V@50Hz/60Hz split phase, 1Ø, 230 1 phase)
OUTPUT	AC #1 (Grid)	5000W Max(110-120/220-240V@50Hz/60Hz split phase, 1Ø, 230 1 phase)
	AC #2 (EPS)	5000W Max(110-120/220-240V@50Hz/60Hz split phase, 1Ø, 230 1 phase)
		Automatic Switchover Time<20ms
	AC#3	5000W Max(110-120/220-240V@50Hz/60Hz split phase, 1Ø, 230 1 phase)
	AC#4	3300W Max(110-120/220-240V@50Hz/60Hz split phase, 1Ø, 230 1 phase)
	AC#5*2	2200W Max for each(110-120/220-240V@50Hz/60Hz split phase, 1Ø, 230 1 phase)
4 AC ports share output	AC#3+AC#4+AC#5*2 ports<5000W, Power-L1@AC#3 + Power-L1@AC4 + Power-L1@AC5 < 2500W Power-L2@AC#3 + Power-L2@AC4 + Power-L2@AC5 < 2500W	

## SPECIFICATIONS



Model		M3600
GENERAL	Capacity	3584Wh(N≤3)
	Cell Chemistry	LiFePO <sub>4</sub>
	Nominal Current	70A
	Lifecycle	6000+ Cycles to 80% Capacity
	Indicator	APP/LED Screen/Web
	Storage Temp.	-4°F~140°F(-20°C~60°C)
	Operating Temp.	32°F~122°F(0°C~50°C)
	Material	Metal
	Weight	60±1kg
	Dimensions (With Base)	721*408*809mm
	Dimensions (Without Base)	651*408*670mm
	Battery Management System	OVP,UVP,OCP,SCP,OTP,UTP,etc
	Solar Charge System	MPPT Charge Controller
	INPUT	MC4 (Solar)
AC #1		2000W Max(220V~240V@50Hz/60Hz)
AC #2 (Grid)		3600W Max(220V~240V@50Hz/60Hz)
OUTPUT	AC #2 (Grid)	3600W Max(220V~240V@50Hz/60Hz)
	AC #3 (EPS)	3600W Max(220V~240V@50Hz/60Hz)
		Automatic Switchover Time<20ms
	AC #4	2000W Max for each(220V~240V@50Hz/60Hz), AC*4 ports total 3600W

## SPECIFICATIONS



Model		M3600NA
GENERAL	Capacity	3584Wh*N(N≤3)
	Cell Chemistry	LiFePO <sub>4</sub>
	Nominal Current	70A
	Lifecycle	6000+ Cycles to 80% Capacity
	Indicator	APP/LCD Screen/Web
	Storage Temp.	-4°F~140°F(-20°C~60°C)
	Operating Temp.	32°F~122°F(0°C~50°C)
	Material	Metal
	Weight	120±1kg
	Dimensions (With Base)	790*439*809mm
	Dimensions (Without Base)	720*439*640mm
	Battery Management System	OVP,UVP,OCP,SCP,OTP,UTP,etc
	Solar Charge System	MPPT Charge Controller
	INPUT	MC4 (Solar)
AC #1 (Grid)		3600W Max(110~120/220~240V@50Hz/60Hz split phase, 1Ø, 230 1 phase)
OUTPUT	AC #1 (Grid)	3600W Max(110~120/220~240V@50Hz/60Hz split phase, 1Ø, 230 1 phase)
	AC #2 (EPS)	3600W Max(110~120/220~240V@50Hz/60Hz split phase, 1Ø, 230 1 phase)
		Automatic Switchover Time<20ms
	AC#3	3600W Max(110~120/220~240V@50Hz/60Hz split phase, 1Ø, 230 1 phase)
	AC#4	3300W Max(110~120/220~240V@50Hz/60Hz split phase, 1Ø, 230 1 phase)
	AC#5*2	1800W Max for each(110~120V@50Hz/60Hz)
4 AC ports share output	AC#3+AC#4+AC#5*2 ports<3600W, Power-L1@AC#3 + Power-L1@AC4 + Power-L1@AC5 < 1800W Power-L2@AC#3 + Power-L2@AC4 + Power-L2@AC5 < 1800W	

# SPECIFICATIONS



Model		P5000	P5000NA
GENERAL	Capacity	5120Wh	
	Cell Chemistry	LiFePO <sub>4</sub>	
	Nominal Current	80A	100A
	Lifecycle	6000+ Cycles to 80% Capacity	
	Storage Temp.	-4°F~-140°F(-20°C~60°C)	
	Operating Temp.	32°F~122°F(0°C~50°C)	
	Material	Metal	
	Weight	46±0.5kg	
	Dimensions	596*466*210mm	
	Battery Management System	OVP, UVP, OCP, SCP, OTP, UTP, etc.	
INPUT	Battery Voltage Range	48V~58.4V	
	Charge Voltage	58V Max	
	Charge Current	80A	100A
OUTPUT	Discharge Current	80A	100A
	DoD	90%	

# SPECIFICATIONS



Model		P3600
GENERAL	Capacity	3584Wh
	Cell Chemistry	LiFePO <sub>4</sub>
	Nominal Current	70A
	Lifecycle	6000+ Cycles to 80% Capacity
	Storage Temp.	-4°F~-140°F(-20°C~60°C)
	Operating Temp.	14°F~104°F(-10°C~40°C)
	Material	Metal
	Weight	40±1kg
	Dimensions	682*338*647mm
	Battery Management System	OVP,UVP,OCP,SCP,OTP,UTP,etc
INPUT	Battery Voltage Range	42V~58.8V
	Charge Voltage	58V Max
	Charge Current	70A
OUTPUT	Discharge Current	70A
	DoD	90%

# M2200 & P2200 SOLAR GENERATOR & POWERSTATION

2240Wh~6720Wh



**2240Wh~6720Wh**  
Capacity

**2000W Max**  
AC Input

**1000W Max**  
Solar Input

**2400W Max**  
AC Output

**100W Max**  
USB-C Output

**1.2Hours**  
Fully Charged



## SPECIFICATIONS

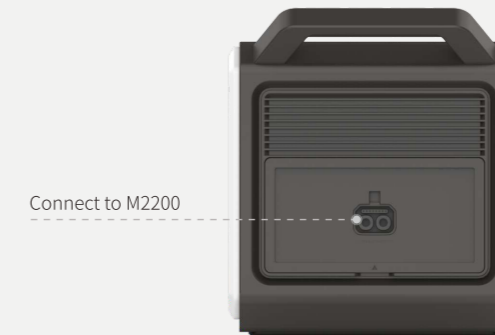


Supports Europe Standard, American Standard, Britain Standard and other specifications.



Model		M2200
GENERAL	Capacity	2240Wh
	Cell Chemistry	LiFePO <sub>4</sub>
	Single Cell Capacity	50Ah@3.2V/pcs
	Lifecycle	6000+ Cycles to 80% Capacity
	Indicator	APP / TFT Screen
	Storage Temp.	-4°F~113°F(-20°C~45°C)
	Operating Temp.	14°F~113°F(-10°C~45°C)
	Material	ABS + PC + Metal
	Weight	22±0.5kg
	Dimensions	400*260*270mm
	Battery Management System	OVP,UVP,OCP,SCP,OTP,UTP,etc.
	Solar Charge System	MPPT Charge Controller
	INPUT	AC
XT60		500W*2 Max(Solar/DC 12V~59V)
OUTPUT	AC	2400W Max (220V~240V@50Hz) / 2000W Max (100V~120V@60Hz)
	USB-A	18W Max(5V~12V)
	USB-C #1	45W Max
	USB-C #2	100W Max
	DC 5525	120W(12V / 10A)
	Car Charger	120W(12V / 10A)

## SPECIFICATIONS



Model		P2200	
GENERAL	Capacity	2240Wh	
	Cell Chemistry	LiFePO <sub>4</sub>	
	Nominal Current	50A	
	Lifecycle	6000+ Cyclesto 80% Capacity	
	Storage Temp.	-4°F~113°F(-20°C~45°C)	
	Operating Temp.	14°F~113°F(-10°C~45°C)	
	Material	ABS + PC + Metal	
	Weight	18±0.5kg	
	Dimensions	400*260*270mm	
	Battery Management System	OVP,UVP,OCP,SCP,OTP,UTP,etc	
	INPUT	Battery Voltage Range	42V~50.4V
		Charge Voltage	50.4V
		Charge Current	50A
OUTPUT	Discharge Current	100A	
	DoD	90%	

# M1200&P1200 SOLAR GENERATOR & POWERSTATION

1030Wh~2060Wh



**1030Wh~2060Wh**  
Capacity

**1000W Max**  
AC Input

**800W Max**  
Solar Input

**1200W Max**  
AC Output

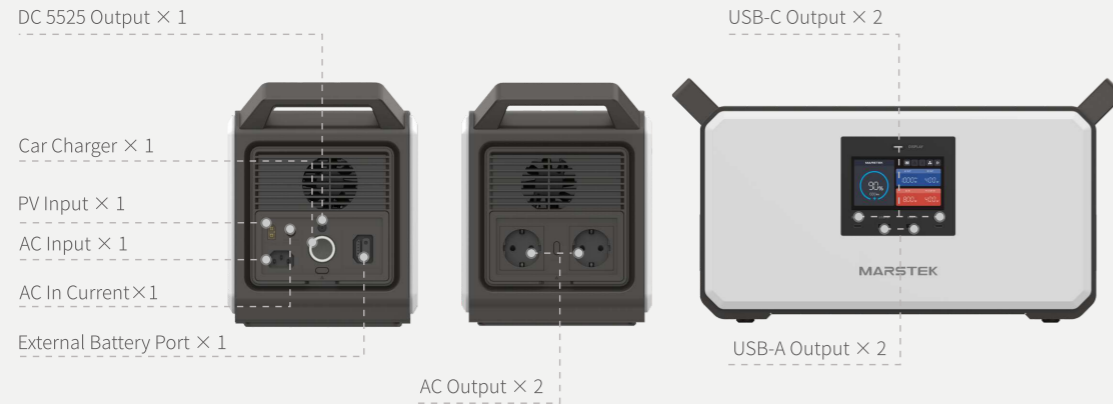
**100W Max**  
USB-C Output

**1Hour**  
Fully Charged

## SPECIFICATIONS



Supports Europe Standard, American Standard, Britain Standard and other specifications.



Model		M1200
GENERAL	Capacity	1030Wh
	Cell Chemistry	LiFePO <sub>4</sub>
	Single Cell Capacity	23Ah@3.2V/pcs
	Lifecycle	6000+ Cycles to 80% Capacity
	Indicator	APP / TFT Screen
	Storage Temp.	-4°F~-113°F(-20°C~45°C)
	Operating Temp.	14°F~113°F(-10°C~45°C)
	Material	ABS + PC + Metal
	Weight	13±0.5kg
	Dimensions	400*195*200mm
	Battery Management System	OVP,UVP,OCP,SCP,OTP,UTP,etc.
	Solar Charge System	MPPT Charge Controller
	INPUT	AC
XT 60		800W Max
OUTPUT	AC	1200W Max (220V~240V@50Hz) / 1000W Max (100V~120V@60Hz)
	USB-C	100W Max
	USB-A	18W Max(5V~12V)
	DC 5525	120W(12V / 10A)
	Car Port	120W(12V / 10A)

## SPECIFICATIONS



Model		P1200
GENERAL	Capacity	1030Wh
	Cell Chemistry	LiFePO <sub>4</sub>
	Nominal Current	23A
	Lifecycle	6000+ Cyclesto 80% Capacity
	Storage Temp.	-4°F~113°F(-20°C~45°C)
	Operating Temp.	14°F~113°F(-10°C~45°C)
	Material	ABS + PC + Metal
	Weight	13±0.5kg
	Dimensions	400*195*200mm
	Battery Management System	OVP,UVP,OCP,SCP,OTP,UTP,etc
	INPUT	Battery Voltage Range
Charge Voltage		50.4V
Charge Current		27A
OUTPUT	Discharge Current	54A
	DoD	90%

# S120 / S200 PORTABLE SOLAR PANELS

120W~200W



## SPECIFICATIONS

Model	S120	S200
Peak Power	120W	200W
Interface	MC4 / DC7909	MC4 / DC7909
Power Voltage	20.8V	23.14V
Power Current	5.76A	11.16A
Operating Temp.	14°F~149°F(-10°C~65°C)	14°F~149°F(-10°C~65°C)
Cell Efficiency	≥23%	≥23%
Cable Length	200cm	200cm
Dimensions(Folded)	616*381*25mm	681*555*45mm
Dimensions(Unfolded)	1370*616*15mm	2075*681*25mm

## THE SERIES-CONNECTION DIAGRAM

