

MERITSUN[®]

Power Plus Energy Storage System— EU Specifications



Power Plus Lithium Energy Storage System Series

MERITSUN home integrated solar storage solution, intelligent and flexible to solve the problem of home energy management for you.

MeritSun Power Plus Lithium Energy System is an integrated battery system that stores your solar energy for backup protection, so your power stays on when the grid goes out. Your system detects a power outage and automatically recharges with sunlight to keep your device running for days.

Product advantages

Real-Time Monitoring
RS232/485/CAN communication port

Smart Screen Design
Multifunctional Intelligent LED & LCD display

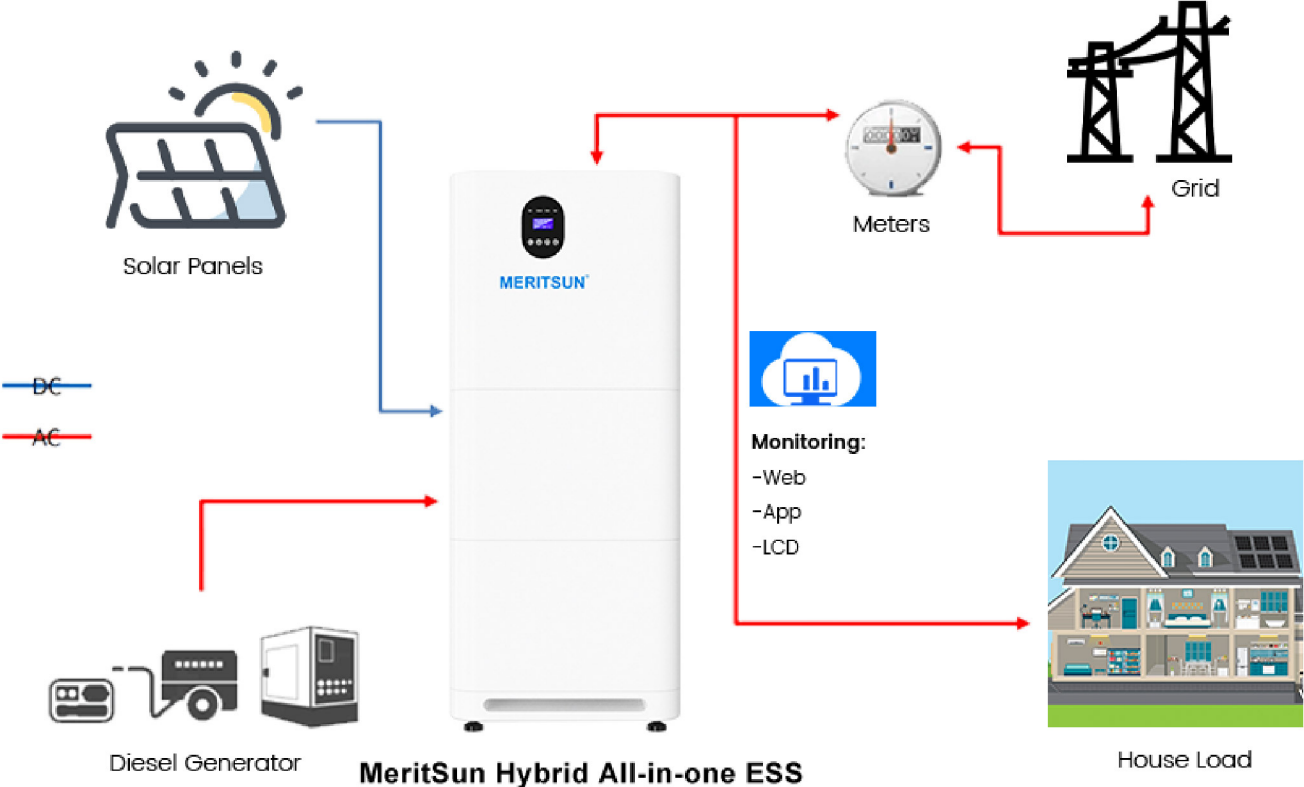
WIFI Monitoring
Real-time monitoring of your system through APP

House Made Smart BMS
Patented Technology

Day & Night
24/7 Uninterrupted Power Supply

Plug & Play
Easy Installation and Simple Configuration

Product System Application



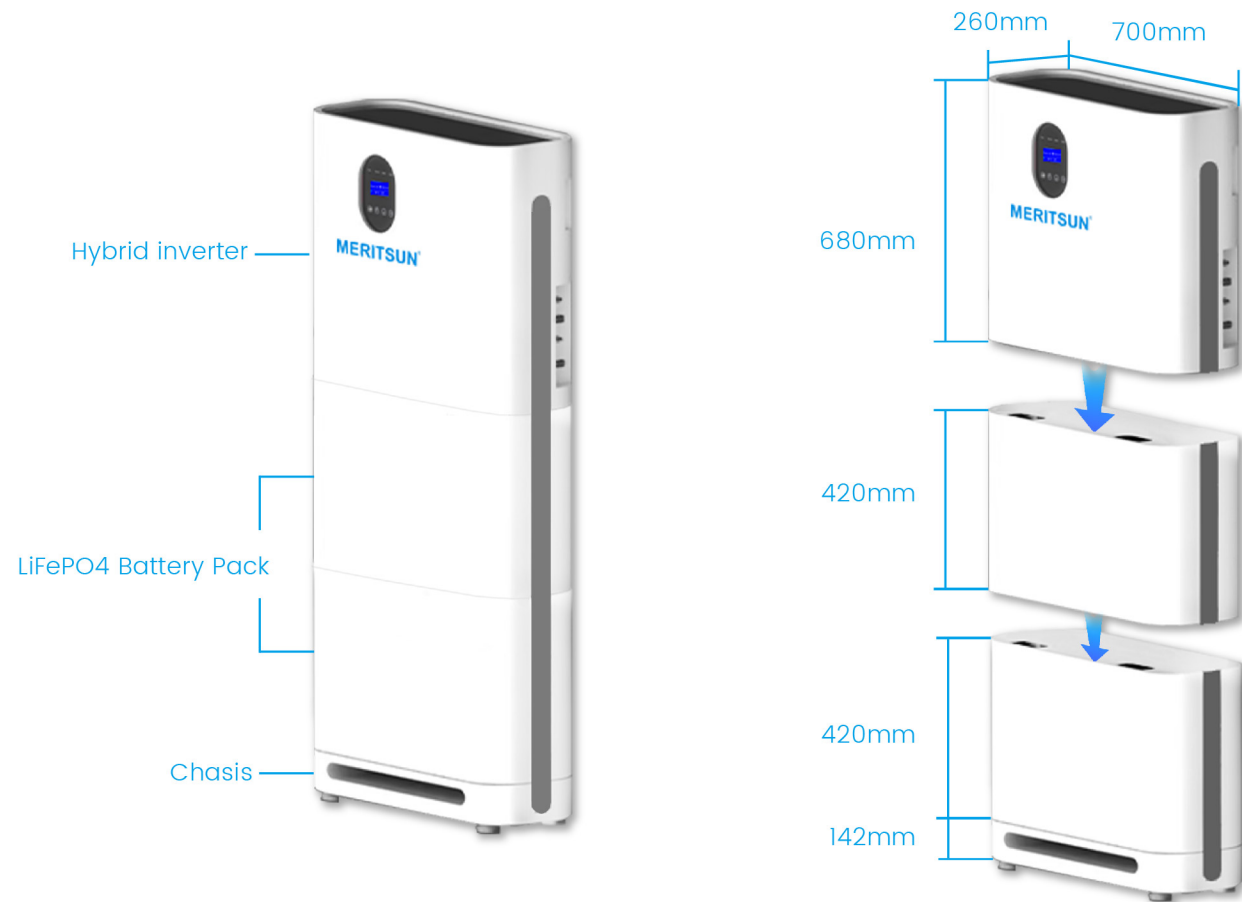
Flexible Storage Capacity

All-in-one design, transforms storage, and can easily expand at any time.



Compact & Elegant Design

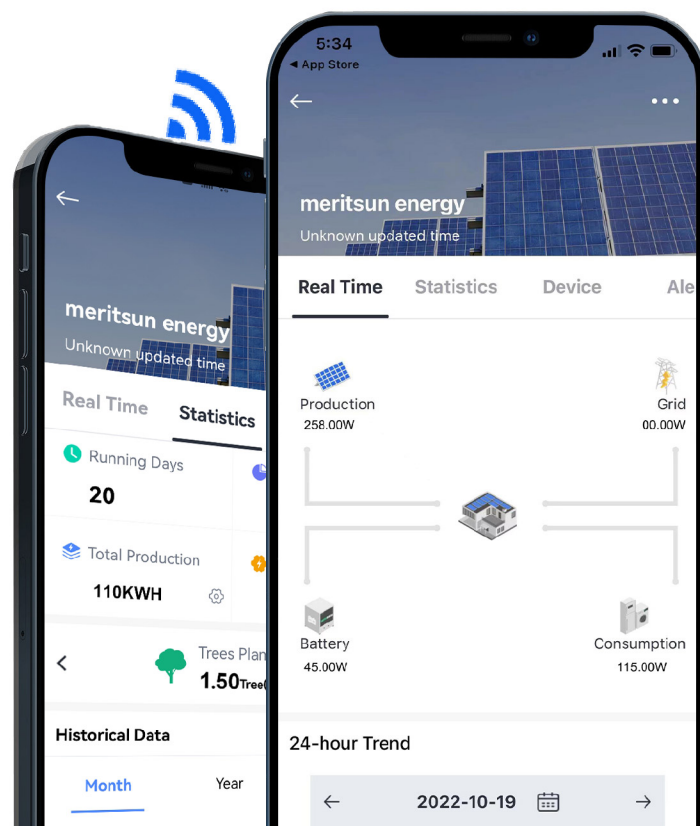
Slim design for maximum space saving, easy installation and plug and play



Battery Specifications

Model	LFP100-48/51.2	LFP200-48/51.2
Voltage	48/51.2V	48/51.2V
Capacity	100Ah	200Ah
Energy	4.8KWh	9.6KWH
Dimensions(L*W*H)	700*260*420mm	700*260*420mm*2
Weight	47/51 Kg	94 / 102Kg
Design life time(25℃)	20 years	
Life cycles(80% DOD,25℃)	8000 Cycles	
Storage tiome/temperature	5 moths @ 25℃;3 moths @ 35℃;1 moths @ 45℃	
Operation temperature	-20℃ to 60℃ @ 60±25 Relative Humidity	
Storage temperature	0℃ to 45℃ @ 60±25 Relative Humidity	
Lithium battery standard	IEC62619,UN38.3,ROHS,CE- EMC,UL 1642,MSDS	
Enclosure protection rating	IP52	
Operation voltage	48/51.2 Vdc	
Max. charging voltage	54/57.6 Vdc	
Cut-off discharge voltage	40.5/43.2 Vdc	
Max. charge and discharging current	100A	

Easy Control At Your Fingertips



Inverter Specifications

Model	5K Hybrid
Solar Input	
Max DC Input Power	8000W
Nominal DC Input Voltage	360V.d c
DC Input Voltage Range	100- 550V.d c
Start-up voltage	140V.d c
MPPT number	2

Inverter Specifications

MPPT Voltage Range	120- 500V.d.c
Max. Short- circuit Current	13.7A/ 13.7A
Max Input Power per MPPT	4000W /4000W
Max DC Input Current	12.5A/12.5A

Battery Output

Compatible Battery Type	Lithium
Nominal Battery Voltage	48V.d c
Battery Voltage Range	40 - 60V.d c
Max. Charge/Discharge Current	66A/66A
Max. Charge/Discharge Power	3600W/3600W
Charging Curve	3 stages
Max Charge Voltage	59V

AC Output

Nominal AC Output Power	4600W /5000VA
Max AC Output Power	4600VA/5000VA
Max AC Output Current	25A
Nominal AC Voltage	230V.a.c
AC Voltage Range	180 - 270V.a c
Nominal AC Frequency	50Hz/ 60Hz
AC Frequency Range	45-55Hz / 55-65Hz
PF	0.8lagging- 0.8leading
THDI	< 3%
Inrush Current	60.0A/5us
Max Output Fault Current	70a.c.A/3s
Max. Output Over Current Protect	25A

EPS Output - with Battery

EPS Max Output Power without Solar	3600W
EPS Max Output Power with Solar	5000W

Inverter Specifications

EPS Nominal Output Voltage	230V.a.c
EPS Nominal Output Frequency	50Hz / 60Hz
EPS Nominal Output Current	13A
Peak Power	4500W, 30s
THDV	< 5%
Switching Time	< 0.01s

Efficiency

Europe Efficiency	97.5%
Max Efficiency	97.9%
Battery Charge/Discharge Efficiency	94.5%

Protection

Ingress Protect Degree	IP65 / NEMA4X
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General Data

Dimensions (L*W*H)	700*260*680mm
Weight	20 kg
Topology	Tranformerless (solar), HF (Battery)
Cooling Concept	Natural Convection
Relatively Humidity	0-100%
Operating Temperature Range	-25 - 60 °C
Altitude	< 2000m
Noise Emission	< 25dB
Standby Consumption	< 5W
Max. Output Over Current Protect	70a.c.A/3s
Display & Communication Interfaces	RS485/RS232/Wi-Fi/CAN

Certification & Approvals

AS 4777, VDE-AR-N4105, VDE0126, G83, G59
IEC62109-1-2, IEC62040, EN6 1000-6-1, EN6 | 000-6-2, EN6 1000-6-3