

# LIFEPO4 BATTERY

# BSM48106

51.2V 106AH



BSM48106H is a high voltage battery storage system based on lithium iron phosphate battery, is one of new energy storage products developed and produced by BLUESUN, it can be used to support reliable power for various types of equipments and systems. BSM48106H is especially suitable for application scene of high power, limited installation space, restricted load-bearing and long cycle life.

BSM48106H has 3 levels BMS (battery management system), which can manage and monitor cells information including voltage, current and temperature. What's more, BMS can balance cells charging and discharging to extend cycle life. Multiple batteries can connected in parallel to expand capacity and power in parallel for larger capacity and longer power supporting duration requirements.

# Battery Module

## BSM48106

High Voltage Lithium-Ion Phosphate  
Battery storage system



MODULE	BSM48106
Capacity (kWh)	5.12
Nominal Voltage(Vdc)	51.2
Nominal Capacity(AH)	100
Voltage Range(Vdc)	43.2-57.6
Depth of Discharge	80%
Dimension(W* D* H,mm)	431*564*168
Design Life	15+ years(25 °C)
Cycle Life	> 6000 (25 °C)
Communication	CANBUS/ModbusRTU/TCP/IP
Protection Class	IP20
Weight (kg)	52
Operation Temperature	0-50 °C
Storage Temperature	-20-60 °C
Operation Temperature	UN38.3

# Main Controller

## BSM1000V120A



MODULE	BSM1000V120A
Related Product	1000V 120A
AC Supply	--
System Operation Voltage (Vdc)	0-1000
Nominal Capacity(AH)	120
Self-consumption Power(W)	8
Dimension (W* D* H, mm)	431*564*168
Communication	MODBUSRTU/CAN
Protection Class	IP20
Weight(kg)	22
Operation Life	15+
Operation Temperature	-20-65
Storage Temperature	-40-80

# Powercube BSM48106

System Voltage < 1000V



MODULE	BSM48106	MODULE	BSM1000V120A
Battery System Capacity (kWh)	5.12* n	Round-trip efficiency (@1C-rate)	95%
Battery System Voltage (Vdc)	51.2* n	Depth of Discharge	90%
Battery System Capacity (AH)	100	Communication	CANBUS/ModbusRTU/TCP/IP
Battery Capacity(Wn)	5.12	Operation Life	15+Years
Battery Modules Qty. (Optional)	1-19	Operation Temperature	10~40 C
Battery System Charge Upper-Voltage	57.6* n	Storage Temperature	-20~60 C
Standard Operation Current(A)	20	Humidity	5 - 95% (without condensing)
Normal Operation Current(A)	50	Altitude (m)	<4000
Max. Operation Current(A)	100	Product Certificate	IEC62619/CE/UN38.3
Battery System Discharge lower-Voltage	43.2* n		

# BUS Cabinet

The bus cabinet is the dc side bus control unit of the energy storage battery system, which is connected with the high voltage box and storage.

Intermediate unit capable of converter; The power pool system (stack) is installed in the bus cabinet.

Switch off/circuit breaker (optional), three-level BMS (ESMU), and UPS power supply. Confluence ark.

The electrical characteristics, heat dissipation performance and safety performance of each component have been fully considered in the design.

And operation and maintenance, reasonable space layout, with compact structure, flexible configuration, security.

Full reliability and other characteristics. Three stage BMS module (ESMU) in the bus cabinet, with CAN, RS-485, RJ45 Ethernet communication interface, can be realized with high voltage box, PCS/UPS or The communication function between EMS realizes the data communication and control of the energy storage battery management system and protection.



NO	ITEM	PARA RANGE	QUANTITY	FUNCTION	REMARK
1	DC Breaker	630/1000V/ 1250A	1	Main Loop Protection	
2	BMS	ESMU-10 II	1	Display Communication Contro	
3	Switching power suooly	35w/75W 24V	1	Power Supply	
4	Miniature clrcuit breaker	S202-C64/20/10	/	Switch	
5	Emergency stop switch	LA38-22ZS	1	Scram Protection	
6	Repeaters	CR-MX024DC2L	/	Signal Control And Conversion	
7	LED instruction	ED16-22DSR (G/Y/R)	/	Status Indicator	
8	Surge protective devices(spdt)	Ex9UEP 20 3P	1	Lightning Protection Bus	
9	Fuse	DC1500V 1000V 200A	1	Protection	
10	UPS	3KVA/2KVA/ 1KVA	1	Uninterruptible Back Up Power Supply	
11	DC Breaker		/	Communication Power Signal Conversion	

The logo features the word "BLUESUN" in a bold, white, sans-serif font, with "ESS" in a smaller font size to its right. A white, stylized orbital ring encircles the "S" in "BLUESUN".

# BLUESUN<sup>ESS</sup>



## Bluesun Solar Co., Ltd.

Innovations Tower, No.679 West WangJiang  
Road, Hi-tech Zone Hefei 230031 China

**Tel:**  
+86 (158) 5821 3997

**E-mail:**  
[info@bluesunpv.com](mailto:info@bluesunpv.com)

**Fax:**  
+86 (551) 6565 2651

**Http:**  
[www.bluesunpv.com](http://www.bluesunpv.com)