110AH SBL Lithium L5

SBL-12V110AHBLH

The battery is upgraded bluetooth & self-heating version with integrated passive & active balancer, ON/OFF isolation switch. And it comes with screw fixing H8 DIN case design.

Features & Benefits

- **Smart BMS upgraded**

Smart BMS design with passive & active balancer integrated.

- **New Grade A+ automotive cells construction**

The new grade A+ automotive cells construction ensures reliable and excellent quality.

- **Pre-charge & Storage function**

Better protections when starting with a higher power inverter and abnormal history storage.

- **Screw fixing DIN Case**

New screw fixing DIN case design and a handle for easier installation.

- **Self-heating**

SBL LiFePO4 battery with Bluetooth and heating version consists of two energy efficient heating elements fully controlled automatically by the BMS, which use the charging current to bring the cells temperature to a safe charging temperature, thus guaranteeing maximum charging and discharging performance even at extreme temperatures to -30℃.

- **Automatic Hibernation mode to double protect battery against deep discharging**

a. If the battery has been put into hibernation mode by app which can be waken up by charging or by app connection.

b. If no current (<0.5A) has been detected by BMS, then BMS will fall into hibernation mode when the cells voltage<3300mV and delay 4320mins (3 days) .

App or charging (current detected by BMS is higher than 0.5A) or on/off button can switch on the BMS.

If cells voltage is lower than 3V, then app cannot wake up the battery but only charging or by on/off button.

c. ON/OFF isolation on/off button.

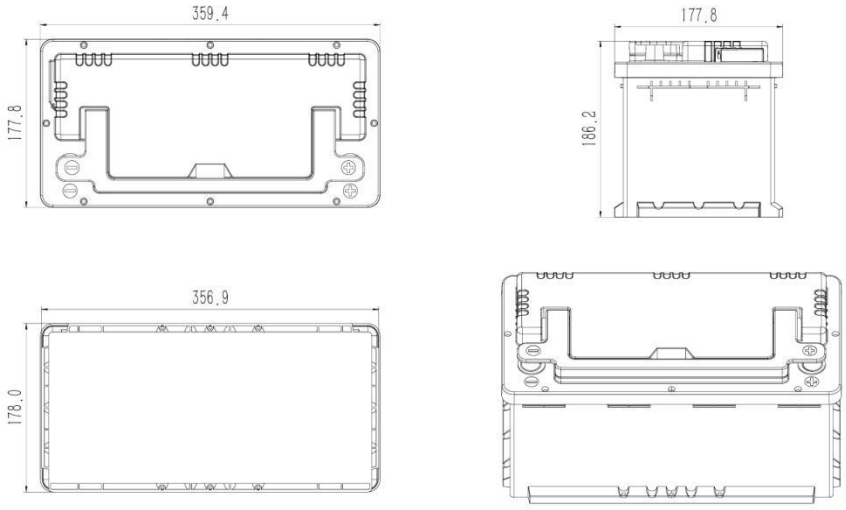
Press on--> BMS is on

Press off--> BMS is off

Press on/off needs 3 seconds interval.

If press off to control BMS switching off, charging or app connection cannot wake up hibernation as it is physical control.

DIMENSIONAL SPECIFICATION



ELECTRICAL SPECIFICATIONS	
Nominal Voltage	12.8V
Nominal Capacity	110Ah
Capacity @0.2C	>290 min
Energy	1408Wh
Resistance	＜10m Ω
Discharge Efficiency	>99%
Cells Self Discharge	<3% per Month
Modules Connections	4S1P

MECHANICAL SPECIFICATIONS	
Dimensions (L x W x H)	357 x 176 x 190mm
Weight	10.5kg
Terminal Type	SAE + M8
Terminal Torque	10-15N-m
Case Material	ABS

CHARGE SPECIFICATIONS	
Maximum Charge Current	160A
Recommended Charge Current	≤50A
Charge Voltage	14.2~14.6V
Charge Cut-off Voltage	14.6V
Reconnect Voltage	14V
Cells Balancing Voltage	3.4V
Cells difference voltage value to open balancing	15mV (passive balancer) 30mV (active balancer)
Passive Balance current	50-100mA
Active Balance current	1-5A
Charge Heating (Temperature <0 ℃, threshold to 10 ℃ and start normal charge. Charge power current need to reach 8A to turn on heaters.	

DISCHARGE SPECIFICATIONS	
Maximum Continuous Discharge Current	160A
Max. Pulse Discharge Current	240A (5S)
Discharge Cut-off Voltage	11V
Reconnect Voltage	12V
Short Circuit Protection	Yes

Hibernation Mode SPECIFICATIONS	
Eneter hibernation cells voltage (no current flow)	<3.3V
Hibernation delay time	4320mins

BMS CONSUMPTION	
Without communication (BT, RS485, CANBUS)	23mA
With communication (BT)	46mA
Hibernation	0.8mA

TEMPERATURE SPECIFICATIONS	
Discharge Temperature	-4~149ºF (-20 ~65℃)
Charge Temperature	32~149ºF (0℃~+65℃)
Temperature Range Storage <1 month	-4~122ºF (-20℃~+50℃)
Temperature Range Storage >1 month	23~104ºF (-5℃~+40℃)
Temperature Protection of FET (Built-in)	194ºF (90℃)