

# SolarForce Smart Energy Storage Battery

48V 100AH 480WH



SP48100  
Model Type



## Intelligent

Each battery with independent BMS system.



## Perfect Compatibility

Compatible with most of the available Hybrid inverters.



## Easy to install and use

Just plug and play to minimize the installation time.



## Long life and safety

Ensures more than 6000 cycles with 80% DoD.



## IP65 rated protection

That it can be Installed Indoors Or Outdoors.

SolarForce lithium battery adopts the latest HESS battery system. With rich experience and advanced techniques, the product has the features of the fashionable design, high energy, high power density, long service life.

Easiness of installation and expansion, all of which reflect the real requirements of the end users and strongest technical capability of our company.

## Comprehensive Products and System Certificates



MSDS

UN38.3

UL1642, IEC62619, CE, UN38.3, MSDS.

## SolarForce Smart Energy Storage Battery

Normal	
Model	SP48100
Battery Type	LiFePo4(LFP)
Norminal Voltage(V)	51.2V
Norminal Capacity(WH)	5120WH
Usable Capacity(WH)	4096WH
Design Life	10+ Years (25°C/77°F)
Physical	
Dimension(mm)	482*400*177.8 (L*D*H)
Weight(kg)	45
Electrical	
Cycle Life	>6000,25°C
Discharge Voltage(V)	45.6-57.6
Charge Voltage(V)	56-57.6
Charge / Discharge Current(A)	50A (Recommended) / 100A (Max)
Internal Resistance	≤30mΩ
BMS	
Power Consumption	<2W(Work) <100mW(Sleep)
Monitoring Parameters	System voltage, current, cell voltage, cell temperature, module temperature
SoC	Intelligent algorithm
Communication	CAN / RS-485
Operation	
Operating Temperature Range	-10°C-50°C
Transport or Storage Temperature Range	-20°C-45°C
Humidity	15%-85% (No Condensing)
Warranty	
Product Warranty	5 Years
Pergormance Warranty	10 Years

## Equipment Interface Instruction

**Power Switch:** To turn ON/OFF the whole battery BMS standby, power output ready.

**SOC Light:** Green LEDs to show the battery's current capacity.

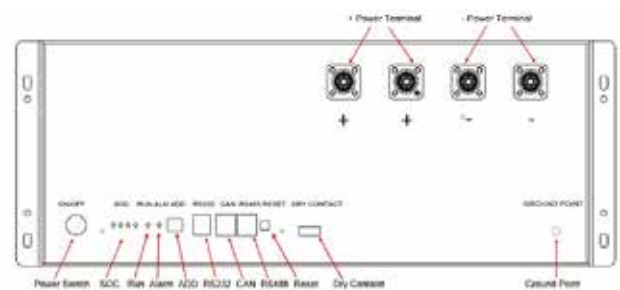
**RUN light:** Green LED flashing to show the battery is running.

**Alarm light:** Red LED flashing to show the battery has alarm, and lighting to show the battery is under protection.

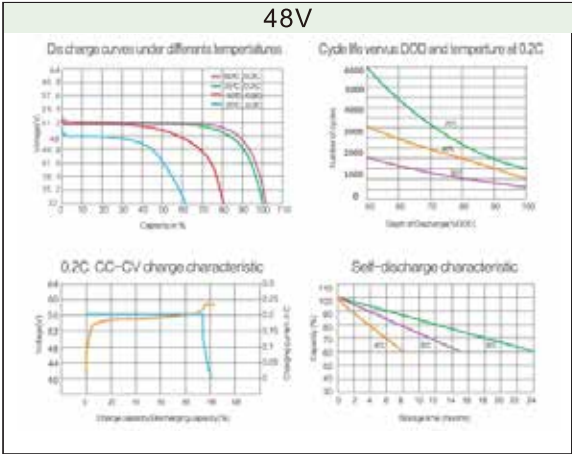
RS232

CAN

RS485



# SolarForce Wall Mounted Lithium Ion Storage Battery



# SolarForce Smart Energy Storage Battery

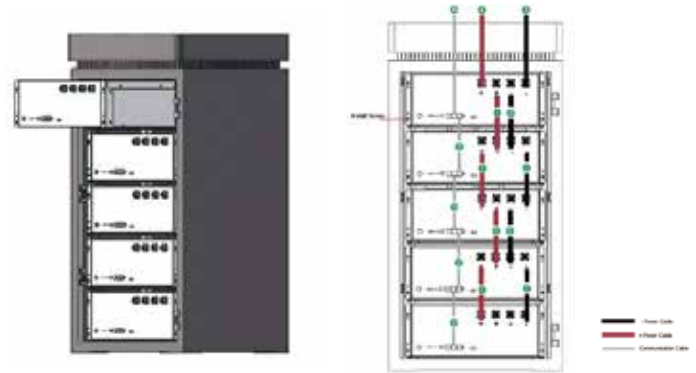
## Installation

Put battery modules into cabinet and connect the cables, Put the battery into the cabinet, Drive the 4 pcs screws, Connect the cables between battery modules Connect the cables to inverter.

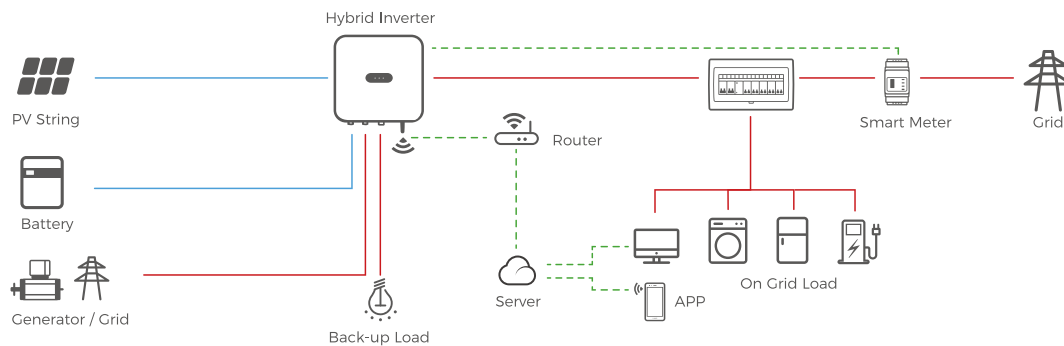
- **Power On** Double check all the power cable and communication cable.

- **ON / OFF** Switch on all the battery modules and the green LED light below will be on:

- **Set ADD** Set ADD follow ADD instruction, pack 1 will be host, others are slaves.



## Schematic Diagram of Solution



## Trouble Shooting Steps

Problem determination based on: 1) Whether the battery can be turned on. 2) If battery is turned on, check the red light is off, flashing or lighting; 3) If the red light is off, check whether the battery can be charged/discharged.

**Preliminary determination steps:** 1) Battery cannot be turned on, switch on the lights are all no lighting or flashing. If the battery external switch is ON, the RUN light is flashing, and the external power supply voltage is 51.2V or more, the battery still unable to turn on, please contact distributor.

- The battery can be turned on, but red light is lighting, and cannot be charged or discharged, red light is lighting, that means system is abnormal, please check values as following.

- **Temperature:** Above 50C or under -10C, the battery could not work. Solution: to move battery to the normal operating temperature range between -10C and 50C. 4) **Current:** If current is larger than 100A, battery protection will turn on. Solution: Check whether current is too large or not, if it is, to change the settings on power supply side.

- **High Voltage:** If charging voltage above 58.4V battery protection will turn on. Solution: Check whether voltage is too high or not, if it is, to change the settings on power supply side. 6) **Low Voltage:** When the battery discharges to 40V or less, battery protection will turn on. Solution: Charge the battery for some time, the red light will turn off. Excluding the four points above, if the faulty is still cannot be located, turn off battery and repair.

- The battery cannot be charged or discharged 1) Cannot be charged Disconnect the power cables measure voltage on power side if the voltage is 56.5-57.6V restanthe battery, connect the power cable and try again, if still not work turn off battery and contact distributor. 2) Unable to discharge: Disconnect the power cables and measure voltage on battery side. if it is under 40V, please charge the battery; if voltage is above 51.2V and still cannot discharge, turn off battery and contact . **Emergency Situations**

## Emergency Situations

- **Leaking Batteries:** If the battery pack leaks electrolyte, avoid contact with the leaking liquid or gas. If one is exposed to the leaked substance, immediately perform the actions described below. **Inhalation:** Evacuate the contaminated area, and seek medical attention. **Contact with eyes:** Rinse eyes with flowing water for 15 minutes, and seek medical attention. **Contact with skin:** Wash the affected area thoroughly with soap and water, and seek medical attention. **Ingestion:** Induce vomiting, and seek medical attention.

- **Fire NO WATER!** Only dry powder fire extinguisher can be used; if possible, move the battery pack to a safe area before it catches fire.

- **Wet Batteries** if the battery pack is wet or submerged in water do not let people access it, and then contact or an authorized dealer for technical support.

- **Damaged Batteries** Damaged batteries are dangerous and must be handled with the utmost care. They are not fit for use and may pose a danger to people or property. If the battery pack seems to be damaged pack it in its original container, and then return it to or an authorized dealer. **NOTE** Damaged batteries may leak electrolyte or produce flammable gas. If such damage occurs, please contact SolarForce.