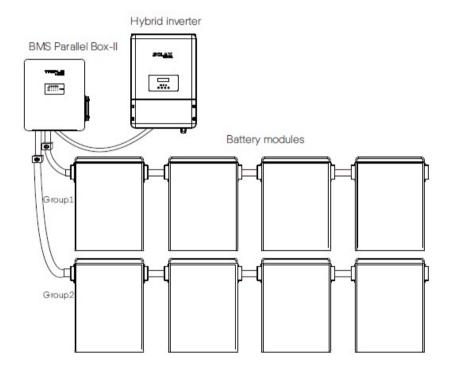


01

Model Introduction





SOLAX POWE

BMS Parallel Box-II



Model Introduction-BMS

System Information(BMS Parallel Box-II)

Operating Voltage : 70V-550 V

Max. Current : 35 A

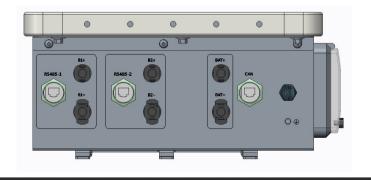
Weight : 5.2kg

Dimensions : 368mm * 334mm * 144mm

Ingress Protection : IP55

Operating Temperature : 0C°-55C°

Cooling Type : natural cooling







Products Comparison

Traditional BMS

- (1) The upper limit of capacity is 18 to 25.2kW;
- (2) The BMS must be placed at the top of the battery packs;
- (3) The BMS cannot be installed on the wall independently;
- (4) The BMS is designed consistently with the battery style.
- (5) No N+1 backup protection

BMS Parallel Box-II

- (1) The capacity of the system is expended to 46.4kW;
- (2) The BMS doesn't need to be placed on the battery packs anymore;
- (3) The BMS can be hung on the wall independently;
- (4) The BMS is designed consistently with the inverter style.
- (5) N+1 backup protection.

Critical Parameters

| Model | BMS Parallel Box-II |
|----------------------------------|---------------------|
| Dimension(W*H*D)[mm] | 368*334*144 |
| Dimension of Package(W*H*D)[mm] | 440*397*257 |
| Net weight(kg) | 5.2 |
| Input/Output voltage range[V] | 70~550 |
| Max. charge/discharge current[A] | 35 |
| Environment | Outdoors |
| Standard power[kW] | 11.6 |
| Maximum power[kW] | 14 |
| Altitude[m] | ≤2000 |
| Pollution degree | PD 3 |
| Noise level | <30dB |
| Overvoltage category(OVC) | II |
| Protective class | I |
| Operating temperature(C°) | 0~55 |
| Ingress protection | IP55 |





System Parameters

BMS-Parallel Box-II

| ENVIRONMENT REQUIREMENT | | | | | | | | |
|---|---------------------------------------|---------------|---------------|---------------|-------------|--------------|--------------|-------------|
| Operating charge/discharge temperature range [°C] | | 0 ~ 55 | | | | | | |
| Full-load charge/discharge temperature range [°C] | 5~48 | | | | | | | |
| Storage temperature [°C] | | | | -20 ~ +55 | (3 months) | | | |
| | 0 to 40 (1 year) | | | | | | | |
| Humidity (%) | 0 to 100 (condensing) | | | | | | | |
| Altitude [m] | ≤ 2000 | | | | | | | |
| Protection | IPS5 | | | | | | | |
| COMMUNICATION | | | | | | | | |
| System to inverter | 8 | | | CAN2.0 | D/RS485 | | | |
| Battery to battery/BMS | RS485 | | | | | | | |
| Master control LED indicator working mode | 3LED | | | | | | | |
| Master control capacity indicator | 2*4LED (25%, 50%, 75%, 100%) | | | | | | | |
| Battery module LED | 2 LED | | | | | | | |
| Switch on/off | Button*1+breaker*1 | | | | | | | |
| CERTIFICATION | | | | | | | | |
| Safety | IEC 62477-1, IEC 61439-1, IEC 61439-2 | | | | | | | |
| EMC | IEC 61000-6-1/2/3/4 | | | | | | | |
| Transportation regulation compliance | UN38.3 | | | | | | | |
| GENERAL | | | | | | | | |
| Dimensions(LxWxH) [mm] | 368*310*140 | | | | | | | |
| Weight [kg] | 52 | | | | | | | |
| Expected life [years] | 5 | | | | | | | |
| NOMINAL CHARACTER (Battery Pack) | T-BAT \$ 5.8 | T-BAT \$ 11.5 | T-BAT \$ 17.3 | T-BAT \$ 23.0 | T-BAT P 5.8 | T-BAT P 11.5 | T-BAT P 17.3 | T-BAT P 23. |
| Nominal voltage [V] | 115.2 | 230 4 | 345.6 | 460.8 | 115.2 | 230.4 | 345.6 | 460.8 |
| Operating voltage [V] | 100-131 | 200-262 | 300-393 | 400-524 | 100-131 | 200-262 | 300-393 | 400-524 |
| Total energy [kWh] | 5.8 | 11.5 | 17.3 | 23 | 11.5 | 23 | 34.6 | 46.1 |
| Standard power [kW] | 2.9 | 5.8 | 8.7 | 11.6 | 2.9 | 58 | 8.7 | 11.6 |
| Max. power [kW] | 3.5 | 7 | 10.5 | 14 | 3.5 | 7 | 10.5 | 14 |
| Pollution Degree | PD3 | | | | | | | |
| Overvoltage Category(OVC) | п | | | | | | | |
| Protective Class | | | | | | | | |
| Recommend charge/discharge current [A] | 25 | | | | | | | |
| Max. charge/discharge current [A] | 35 | | | | | | | |
| Cycle life [90% DOD] | 6000 Cycles | | | | | | | |

16 Selling Points

(1) The battery capacity can be doubled

The conventional battery system is limited by the system voltage and the volume of a single cell, with a set of 4 cells, and the capacity is between 12 and 25KW. The main control is a single bus and cannot be expanded in parallel;

The BMS-Parallel Box is designed with dual-bus dual-circuit power supply, which can double the number of existing battery cells. For example, the capacity of T58*4 (23KW) can be expanded to T58*8 (46KW);

(2) With dual-module backup capability

The BMS-Parallel Box has dual bus bars inside, and the control board has dual power supply design, which can be reliably separated when one of the battery systems fails without affecting the normal operation of the other group, which can effectively protect the important load. Power supply safety;

(3) Extend battery life

The two groups of battery modules in the parallel main control can be used alternately, which can greatly reduce the cycle rate of a single battery and extend the use time of the battery system;

Selling Points

(4) It is convenient for customers to expand and install

The BMS-Parallel Box can be mounted on the wall, which can reduce the disassembly and installation of the originally installed battery system when the user expands the capacity.

(5) Support mixed use of new and old modules

Ensure that the new and old modules are connected in series and then installed and used in the parallel box. The system can automatically identify the new and old battery packs and enable them to be charged and discharged independently.

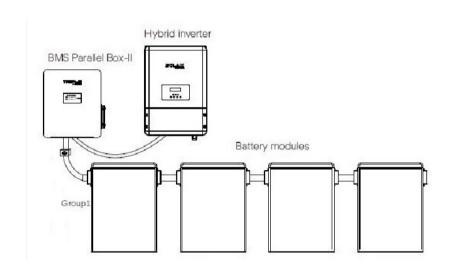
(6) More convenient maintenance

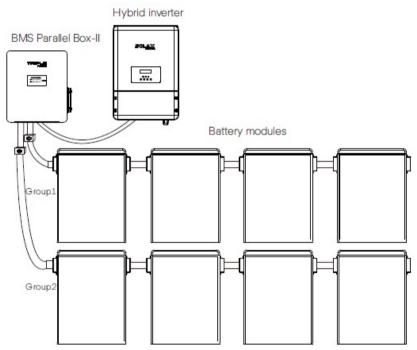
The battery can be upgraded remotely, remotely monitor data and real-time alarm, quickly discover and maintain products; connect to the inverter, support local U disk upgrade.



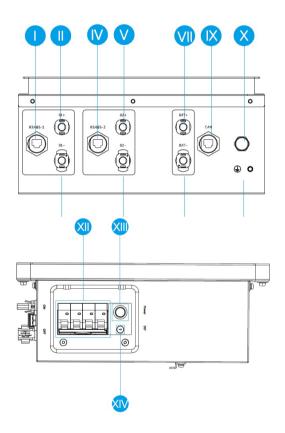


Solutions





18 Terminals Illustration



| Object | Mark | Description |
|--------|---------|--|
| I | RS485-1 | Battery module communication of group 1 |
| | B1+ | Connector B1+ of Box to + of battery module of group 1 |
| III | B1- | Connector B1- of Box to - of battery module of group 1 |
| IV | RS485-2 | Battery module communication of group 2 |
| V | B2+ | Connector B2+ of Box to + of battery module of group 2 |
| VI | B2- | Connector B2- of Box to - of battery module of group 2 |
| VII | BAT+ | Connector BAT+ of Box to BAT+ of inverter |
| VIII | BAT- | Connector BAT- of Box to BAT- of inverter |
| IX | CAN | Connector CAN of Box to CAN of inverter |
| X | / | Air Valve |
| XI | (1) | GND |
| XII | ON/OFF | Circuit Breaker |
| XIII | POWER | Power Button |
| XIV | DIP | DIP Switch |





