

SP 12-200 User Manual

1、 Introduction

SP 12-200 series is developed by Shenzhen Center Power Tech Co.,Ltd., which is suitable for backup purpose of UPS and energy storage system.

The battery system is composed of two levels:

1)BMU, an integrated unit in the battery module, is responsible for collecting the voltage of the single cell, module temperature, battery balance and communicating with the superior management system.

2)BMS, responsible for battery current detection, data acquisition and analysis, alarm and protection control, and communication with superior and lower level management system.

2、 Overview

2.1 **Model:** SP 12-200

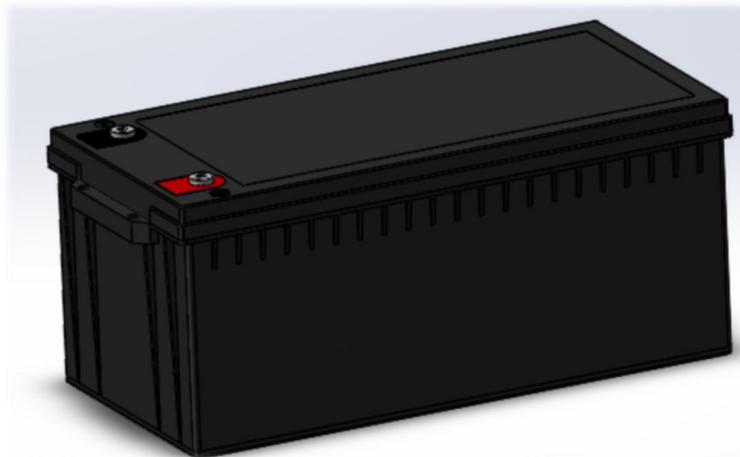
2.2 **Cell:** 3.2V-100Ah

2.3 **Nominal Voltage:** 12.8V

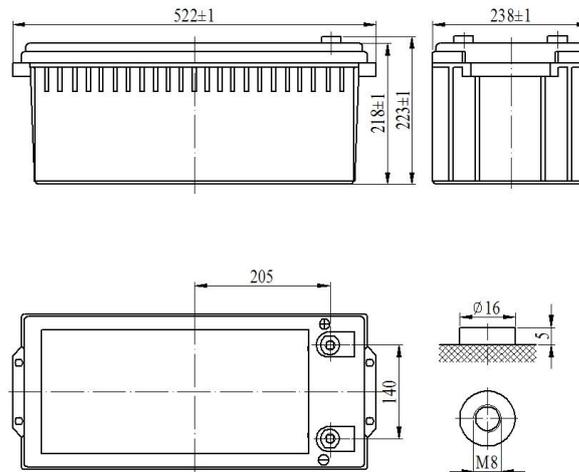
Capacity: 200Ah

Cells Grouping: 4S2P

2.4 **Preview:** (Design Picture for reference)



2.5 Dimension:



2.6 Parameter

Rated Voltage(V)	12.8V
Rated Capacity(Ah)	200Ah
Rated Energy(KWh)	2.56KWh
Maximum Charging Current(A)	50A
Discharge Cut-off Voltage(V)	11.2V
Charging Voltage	13.6~13.8V
Life Cycle (@25°C , 1C/1C, 80%DOD)	Approx 2500 Cycles
Total Weight(Kg)	20Kg
Internal Resistance Fully Charged@ 25°C	≤ 10mOhms
Thermal Management	Air cooling
Operating Humidity	60±25%R.H.
Operating Temperature	Charging 0~50°C
	Discharging -25°C~65°C

3、 Performance

- ✧ High acquisition of voltage data collection (5mv)
- ✧ Customized BMS function and parameter
- ✧ Intelligent equalization management
- ✧ Over Charging, Over Discharging, Over Temperature, Short Circuit Protection
- ✧ This BMS supports a matrix of 4 battery in series X 4 battery in parallel. A total of 16 batteries in the matrix.

4、 Installation Guide

4.1 Preparation

Before installation, please read all safety information provided in this document. If you have any questions about operation and safe use of the battery system, please contact VISION Customer Support (Email Address: aftersales@vision-batt.com) immediately for a free consultation.

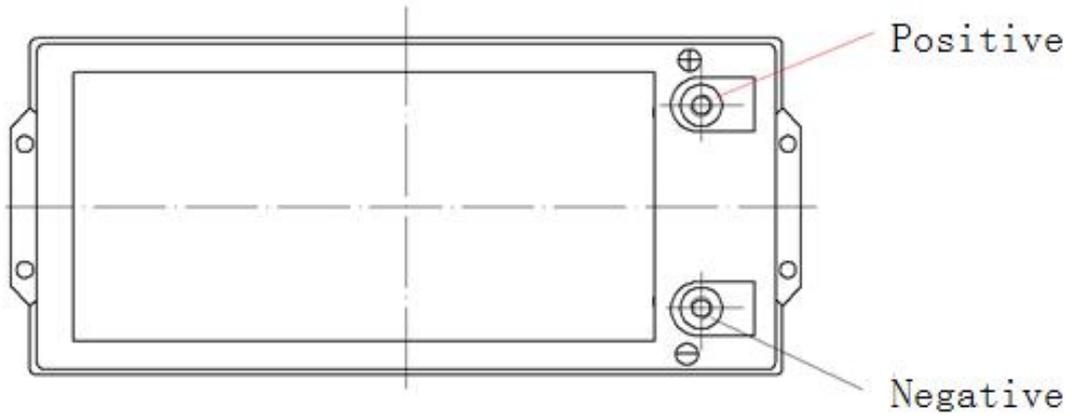
Before Operation:

- Qualified electric worker Qualification is mandatory
- Remove all metal items, such as jewelry, watch, pen
- To ensure the safety of construction personnel and equipment, disconnect the battery pack from the operating equipment during wiring
- Pay attention to the terminal voltage polarity of the battery module
- Make sure installation tools insulating and use tools correctly
- Follow the connection port description and system connection diagram
- It is absolutely forbidden to plug and unplug when the battery is working. Necessary operation should be done after the power supply is disconnected
- Before the formal operation, ensure whether the power terminals are properly connected and tighten the terminals; When it is necessary to measure, be careful to use instruments and tools, to avoid short circuit and other accidents
- It is strictly prohibited to disassemble the battery without permission of the professional technician from manufacture

4.2 Installation Tools

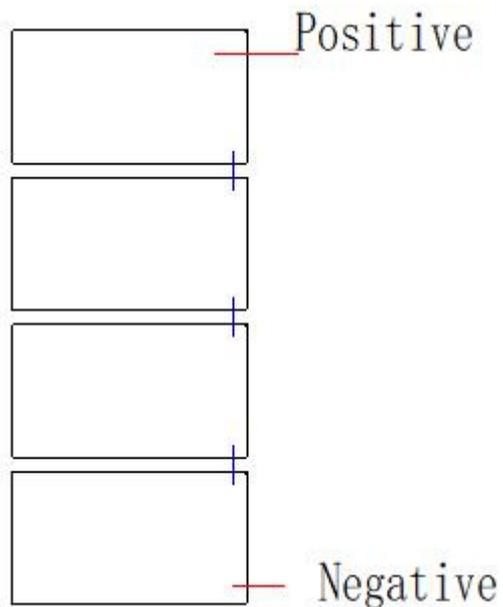
Torque Wrench	
Cross Screwdriver	
Insulating Gloves	
Multimeter	

4.3 Appearance

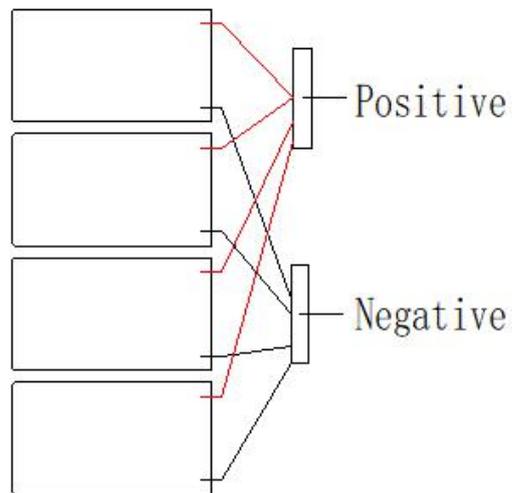


4.4 Battery Connection

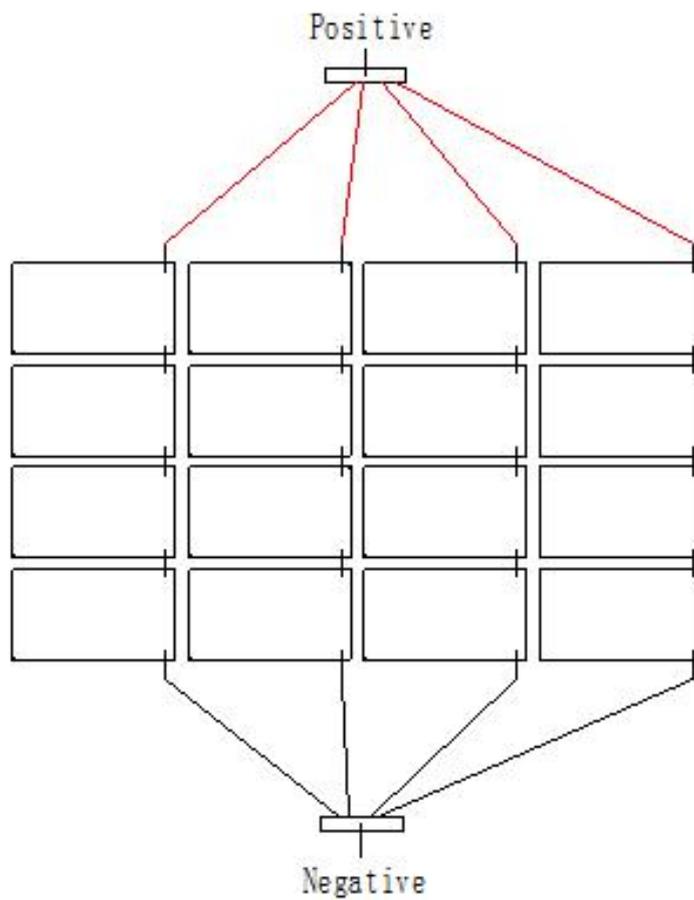
4.4.1 Battery Series:



4.4.2 Battery Parallel:



4.4.3 Battery Series and Parallel (Max 4S4P) :



5、 Attention

- Charging current shall be less than the maximum charging current specified in the data sheet. Charging current exceeding the recommended current may damage the battery;
- The discharge current shall be less than the maximum discharge current specified in the product specifications; Discharge current bigger than the recommended current may damage the battery;
- Non-professional personnel is not allowed to disassemble the battery;
- Reverse charging the battery is strictly prohibited;
- Battery pack should not be used or placed at high temperature. It will cause overheat, function failure or shorter life;
- Battery pack should be placed in dry and cool environment when it is not in use. Immersing into water is prohibited;
- It is strictly prohibited to install and disassemble the battery pack when it is live.