
STANDARD POWER Super Capacitor



A supercapacitor consists of many individual capacitors connected in series. The single pole rated working voltage of supercapacitors is generally around 2.8V, so in most cases, they must be used in series. Due to the difficulty of ensuring 100% identical series circuits for each individual capacity, it is difficult to ensure that the leakage current of each individual is the same. This will cause the charging voltage of each individual to be connected in series, which may cause capacitor overvoltage damage. Therefore, our supercapacitors are connected in series with additional equalization circuits, Ensure voltage balance of each individual unit.

Application

UPS system

Electric tools, electric toys

Solar system

Electric vehicles and hybrid electric vehicles

Backup power supply

Rate

Voltage:2.7V

Capacitance: 60000F

Charging and discharging methods

Standard charging mode: set 1C (25A) charging current, constant current and voltage charging, cut-off current 0.01c (250mA), charging cutoff voltage 16V (DC), working environment $25\text{ }^{\circ}\text{C} \pm 5\text{ }^{\circ}\text{C}$.

Standard discharge mode: set 1C (25A) discharge current, discharge at constant current to 9V (DC) cutoff voltage, and work at $25\text{ }^{\circ}\text{C} \pm 5\text{ }^{\circ}\text{C}$.

Basic characteristics of the product, such as 16V, 10000F

Test conditions

Environmental temperature: $25\text{ }^{\circ}\text{C} \pm 3\text{ }^{\circ}\text{C}$

Relative humidity 25% -85%

Atmospheric pressure: 86kpa-106kpa

Measuring instruments and equipment

All instruments and equipment (including testing equipment and instruments for monitoring and testing parameters) should be inspected or measured in accordance with national metrological verification regulations or relevant standards, and be within the validity period. All measuring instruments and equipment should have sufficient accuracy and stability, and the accuracy should be one order of magnitude higher than the accuracy of the measured indicators or the error should be less than one-third of the allowable error of the measured parameters.

Voltmeter: its accuracy shall not be lower than 0.5 Richter scale, and its internal resistance shall be at least $1\text{k } \Omega/\text{V}$.

Ammeter: The accuracy shall not be lower than level 0.5;

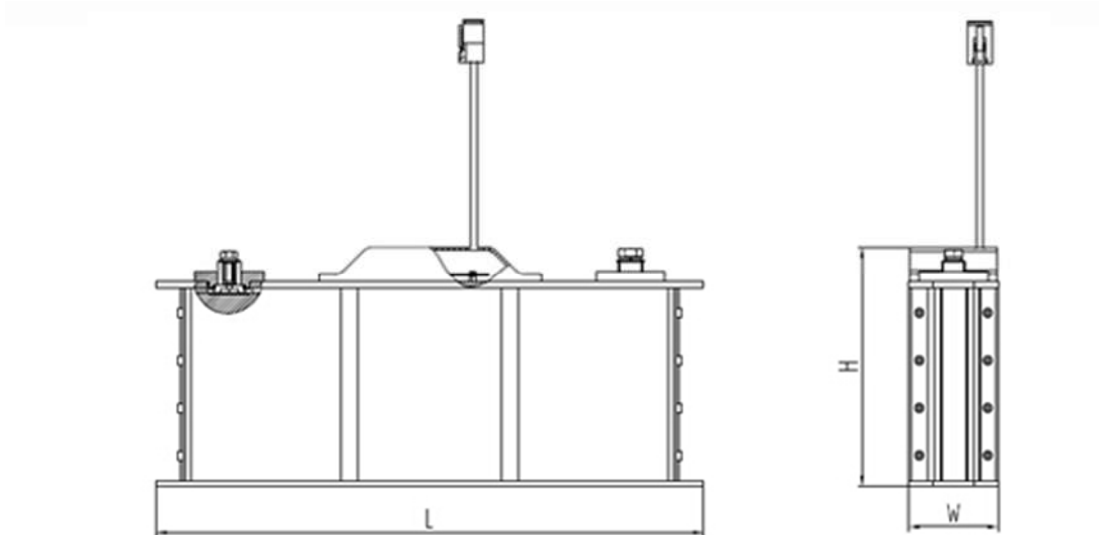
Thermometer: Within an appropriate range, the graduation value should not exceed $1\text{ }^{\circ}\text{C}$, and the calibration accuracy should not be less than $0.5\text{ }^{\circ}\text{C}$

Timer: On time, minute, second, with an accuracy of not less than $\pm 1\%$;

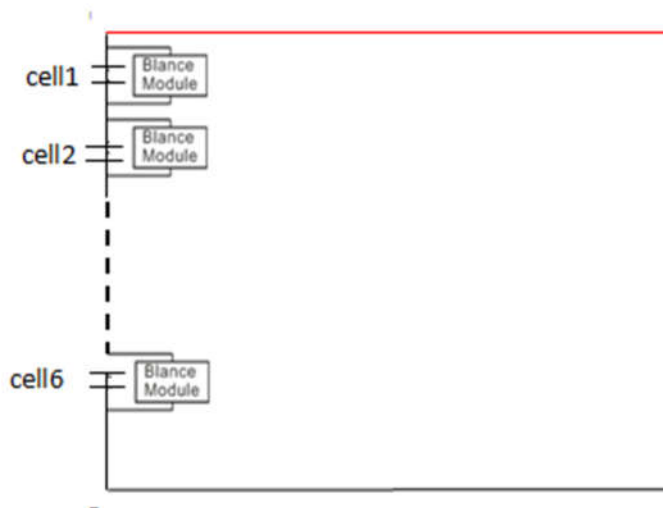
Measuring tools for measuring dimensions: the graduation value shall not exceed 1mm;

Measuring tools for weighing: accuracy not less than $\pm 0.05\%$.

Outline drawing



Circuit schematic diagram



1. The charging current shall not exceed the maximum charging current specified in this specification. Charging at a current value higher than the recommended value may cause problems with the charging and discharging performance, mechanical performance, safety performance, etc. of the capacitor, leading to heating or leakage.
2. The charging voltage shall not exceed the rated voltage of 16V specified in this specification. Charging voltage higher than the rated voltage value may cause problems with the charging and discharging performance, mechanical performance, and safety performance of the capacitor, leading to heating or leakage.
3. The product must be charged at $-30\sim 60\text{ }^{\circ}\text{C}$.
4. If the positive and negative poles of the module are connected correctly, reverse charging is strictly prohibited.
5. The discharge current shall not exceed the maximum discharge current specified in the specifications.
6. The product must be discharged at $-30\sim 60\text{ }^{\circ}\text{C}$.
7. Do not forcefully discharge the product voltage below 9V; Please fully charge before use.