

# SK12V314PH PEAK DISCHARGE CURRENT TEST

## 1. BMS Discharge Protection Settings

- $\geq 260\text{A}$ : Protection triggered, delay time: 1 minute
- $\geq 500\text{A}$ : Protection triggered, delay time: 15 seconds
- $\geq 800\text{A}$ : Protection triggered, delay time: 10 seconds

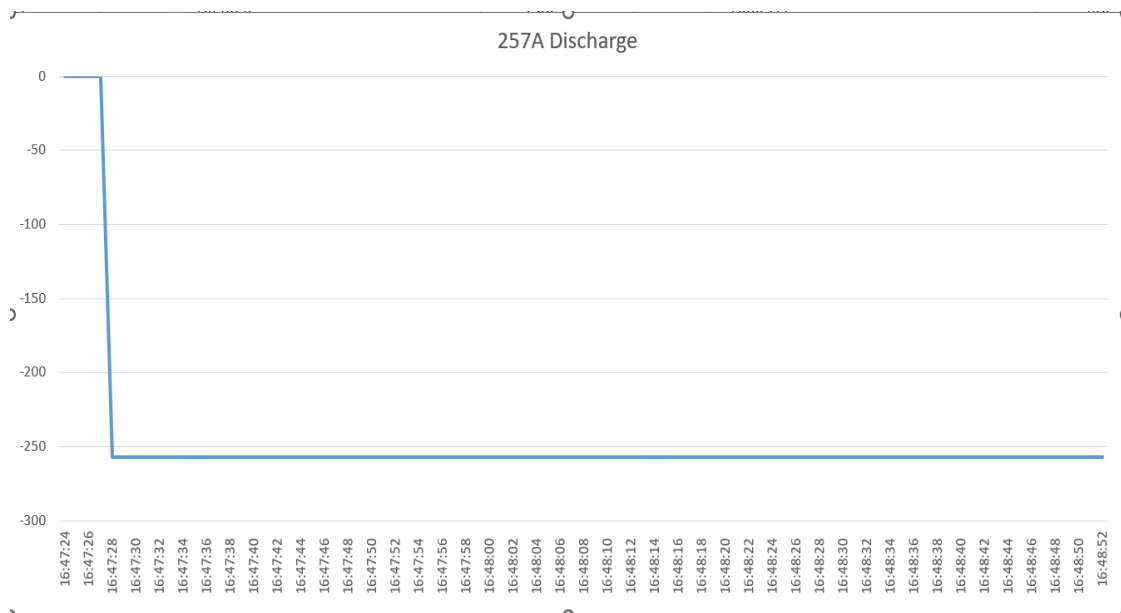
Recommended maximum continuous discharge current: 200A



## 2. Testing Process

We set different discharge current values to test whether they meet the expected requirements.

- **Step 1:** Discharge current 257A (below the protection threshold of 260A),  
**Setting Time:** 2 minutes.  
**Result:** Protection not triggered.



- **Step 2:** Discharge current 265A (above the protection threshold of 260A).  
**Result:** Protection triggered after 1 minute.

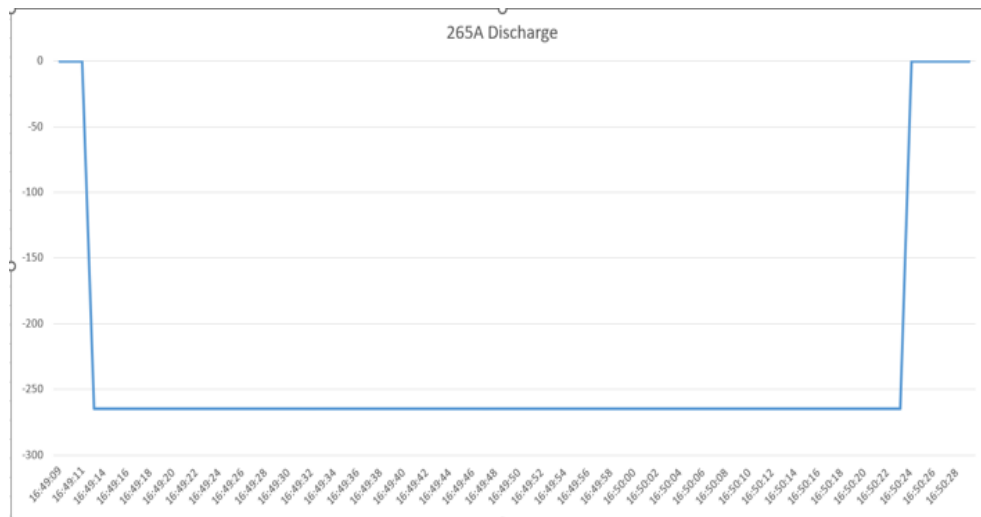
Status Information

|     |   |     |   |       |   |     |   |
|-----|---|-----|---|-------|---|-----|---|
| OCV | ● | UCV | ● | OTV   | ● | UTV | ● |
| OC  | ● | OD  | ● | COT   | ● | DOT | ● |
| CUT | ● | DUT | ● | EOT   | ● | EUT | ● |
| MOT | ● | SC  | ● | Other | ● |     |   |

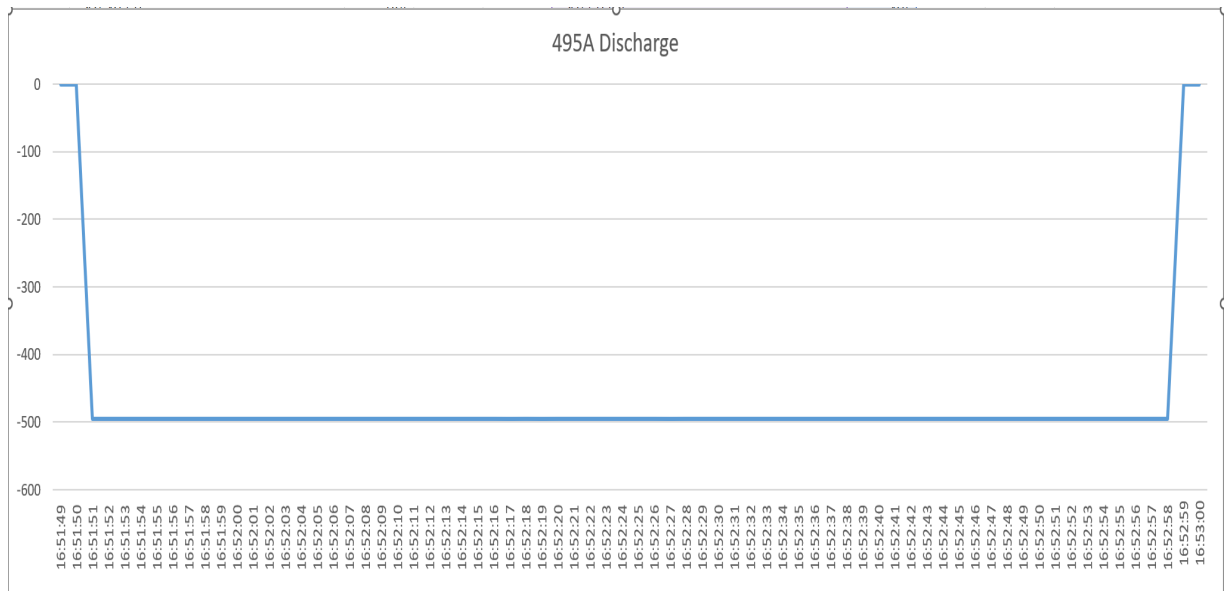
Parameters Information READ

|            |            |            |            |
|------------|------------|------------|------------|
| OCV(mV)    | 3800       | UCV(mV)    | 2300       |
| OTV(V)     | 15.00      | UTV(V)     | 10.00      |
| OC(A)      | 220        | OD(A)      | 260        |
| COT(°F/°C) | 149.0/65.0 | DOT(°F/°C) | 158.0/70.0 |
| CUT(°F/°C) | 23.0/-5    | DUT(°F/°C) | -4.0/-20   |
| EOT(°F/°C) | 203.0/95.0 | EUT(°F/°C) | -4.0/-20   |

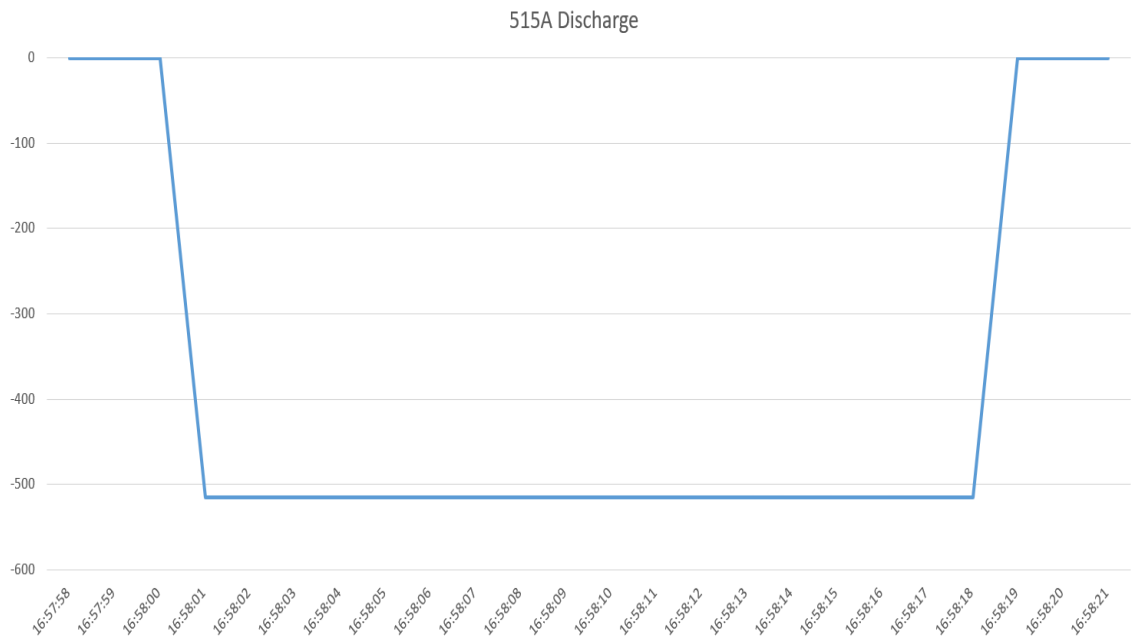
Device Home Info About Us



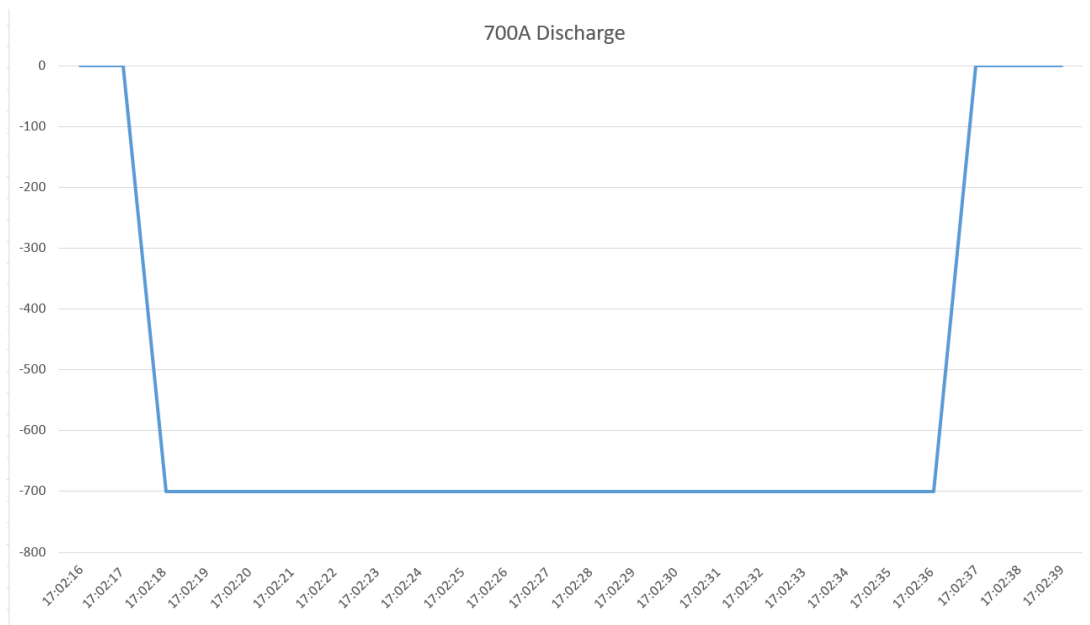
- **Step 3:** Discharge current 495A. (Close to but not above 500A)  
**Result:** Protection triggered after 1 minute. (Execute based on the protection time exceeding 260A)



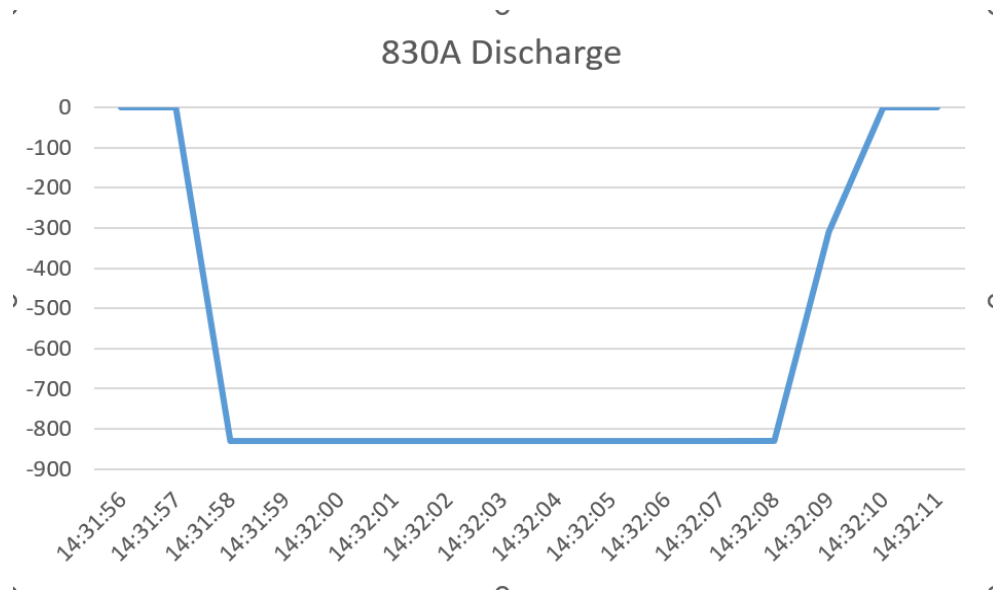
- **Step 4:** Discharge current 515A.  
**Result:** Protection triggered after 15 seconds, meeting expectations.



- **Step 5:** Discharge current 700A.  
**Result:** Protection triggered after 15 seconds, meeting expectations.



- **Step 6:** Discharge current 800A.  
**Result:** Protection triggered after 10 seconds, meeting expectations.



### 3. Short-Circuit Testing

With a high continuous current, are you concerned whether the short-circuit protection works effectively? Let us verify the short-circuit protection.

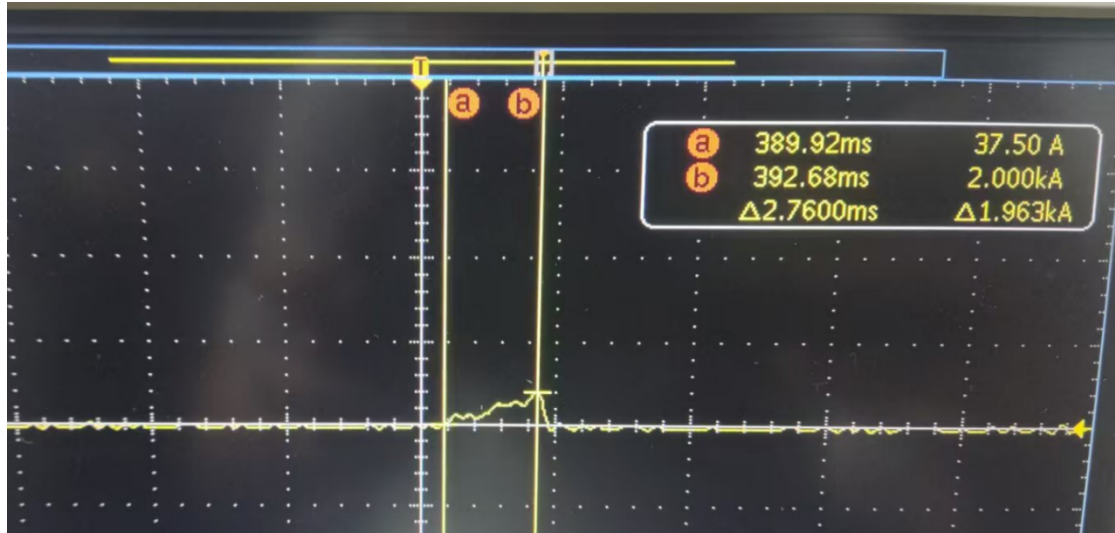
Battery internal resistance to be  $1.65\text{m}\Omega$

External wiring resistance to be  $2.16\text{m}\Omega$ .

Then start short-circuiting testing







**Result:** The data captured by the oscilloscope shows a short-circuit current of 2kA and a short-circuit duration of 2.76ms.