

## **Jartul JT63 Series Electronic Load & Battery Test**

### **Battery Internal Resistance Test**

JT63 series electronic load supports batteries' internal resistance test. Users only need to set three loading current and each current dwelling time. And the electronic load will display the voltage (V) and the resistance (Rs) of the power supply. According to these two indexes, users can also pair these batteries before connecting them in parallel.  $R_s = (V_{max} - V_{min}) / (I_{max} - I_{min})$

### **Maximum Power ( Pmax ) Test**

JT63 series electronic load supports maximum power (Pmax) test. Users only need to set the starting current (Istart), the ending current (Iend), steps No. (steps) and each step dwelling time (Dwell) in OCP mode. And the electronic load will automatically capture the maximum power and display the voltage (V) and current (I) at this maximum power. This function is very suitable for the capture and measurement of the maximum power of solar battery.

### **Discharge Time & Battery Capacity Test**

The electronic load supports battery capacity test. JT 63 series electronic load supports CC, CP and CR three discharge modes and can display the accumulative discharge time, mA·h capacity and WH capacity at one time.

### **Battery Charge Control 1**

Series connection of electronic loads can control CV source charging batteries in constant voltage and restricted current. At first, users need set the electronic load as CC mode, then the connection of CV source and electronic load equals a constant voltage and restricted current charger. Secondly, users can use Von/Voff function to adjust the charge voltage. At the beginning of constant current charge state, the battery voltage keeps increasing and the voltage drop of the electronic load keeps decreasing until triggering Voff, making the electronic load stops loading. Thus setting Voff value can control the ending voltage level of ending charging batteries in constant current. When the electronic load stops loading, due to the disappearance of the voltage drop of the charge connecting wire and the battery resistance, the voltage drop of the electronic load will rise again until triggering Von, making the battery charged in constant current pulse. In constant current pulse charge state, the battery voltage keeps rising. When the D-value of the CV source battery voltage is lower than Von value, Von will not be triggered. Thus setting Von value can control the ending voltage level of completely finishing charging batteries.

### **Battery Charge Control 2**

Series connection of electronic loads can control CV source charging batteries in constant voltage and restricted current. At first, users need set the electronic load as CV mode, and then the connection of CV source and electronic load equals a programmable constant voltage source. Secondly, users can limit the charge current by setting the maximum current protection. Charging the battery at the set maximum current protection, as the battery voltage rises, the voltage drop of the electronic load will gradually decrease. When the voltage drop of the electronic load equals the set voltage, the electronic load will back to CV state and the charge current will gradually become low. The whole process equals to charge the battery in constant voltage and restricted current.