

## ET54A+ Series Programmable DC Electronic Load

### General Information:

ET54A+ programmable DC electronic load provides 1mV/ 1mA high resolution and precision with superior performance, which can be widely used in charger, switching power supply, linear power supply, battery and other production line testing, as well as the research institutions and other research and development fields.



### Products Features:

- User-friendly Design:
  - It adopts 2.8-inch TFT LCD screen with rich display contents; Support Chinese and English;
  - The operation process is simple and convenient, and with visual interface display system, it is easy to get started.
  - Key lock function to prevent misoperation;
- High Performance Load
  - It provides CC, CV, CR, CP and CC+CV, CR+CV several basic measurement modes;
  - It provides professional battery test and LED test;
  - The Tran test mode can test the dynamic output performance of the power supply;
  - The scan test mode can test the continuity of power output within a certain range;
  - The list test mode can simulate a variety of loading status changes;
  - The short circuit test can be used to simulate load short circuit;
  - Support external trigger input (DB9 interface is required);
  - Built-in buzzer alarm;

- Maintain data storage in case of power failure;
- Remote operation via USB, RS-232 (optional) or 485 (optional) interfaces;
- Equipped with software remote compensation
- Multiple safety protection:
  - It provides overcurrent, overvoltage, overpower, over temperature protection. The overvoltage and overcurrent parameters can be set flexibly, so as to effectively protect the load;
  - It has intelligent fan speed control function, which can effectively reduce the fan noise when it is working.
- With input polarity reverse prompt;

## Main Technical Index:

| MODEL                   |                            | ET5410 A+                     | ET5420 A+          | ET5411 A+                |
|-------------------------|----------------------------|-------------------------------|--------------------|--------------------------|
| Channels                |                            | Single Channel                | Double channels    | Single Channel           |
| Rated input             | Power                      | 400W                          | 400W (200W×2)      | 400W                     |
|                         | Input voltage              | 0-150V                        | 0-150V             | 0-500V                   |
|                         | Input current              | 0-40A                         | 0-20A×2            | 0-15A                    |
| CV mode                 | Range                      | 0.1~19.999V, 0.1~150.00V      |                    | 0.1~19.999V, 0.1~500.00V |
|                         | Resolution                 | 1mV, 10mV                     |                    |                          |
|                         | Accuracy                   | ±(0.05%+0.02%FS)              |                    |                          |
| CC mode                 | Range                      | 0~3.000A, 0~40.00A            | 0~3.000A, 0~20.00A | 0~3.000A, 0~15.00A       |
|                         | Resolution                 | 1mA, 10mA                     |                    |                          |
|                         | Accuracy                   | ±(0.05%+0.05%FS)              |                    |                          |
| CR mode                 | Range                      | 0.05 Ω ~1 k Ω , 1 k Ω ~4.5k Ω |                    |                          |
|                         | Resolution                 | 10m Ω , 100m Ω                |                    |                          |
|                         | Accuracy                   | ±(0.1%+0.5%FS)                |                    |                          |
| CP mode                 | Range                      | 0~400W                        | 0~200W             | 0~400W                   |
|                         | Resolution                 | 10mW                          |                    |                          |
|                         | Accuracy                   | ±(0.1%+0.5%FS)                |                    |                          |
| Tran Test               | Mode                       | CC, CV                        |                    |                          |
|                         | T1&T2                      | 1ms~60s; 分辨率: 1ms             |                    |                          |
|                         | Accuracy                   | 0.1%+1ms                      |                    |                          |
| Battery Test            | Discharge mode             | CC, CR                        |                    |                          |
|                         | Maximum discharge capacity | 9999Ah                        |                    |                          |
|                         | Resolution                 | 1mA, 10mA, 10m Ω , 100m Ω     |                    |                          |
| Range of measurement    |                            |                               |                    |                          |
| Voltage read-back value | Range                      | 0~19.999V, 0 ~150.00V         |                    | 0~19.999V, 0~500.00V     |
|                         | Resolution                 | 1mV, 10mV                     |                    | 1mV, 10mV                |
|                         | Accuracy                   | ±(0.05%+0.1%FS)               |                    |                          |

|                               |                 |                     |                    |                     |
|-------------------------------|-----------------|---------------------|--------------------|---------------------|
| Current<br>read-back<br>value | Range           | 0~3.000A, 0~40.00A  | 0~3.000A, 0~20.00A | 0~3.000A, 0~15.00A  |
|                               | Resolution      | 1mA, 10mA           |                    |                     |
|                               | Accuracy        | ±(0.05%+0.1%FS)     |                    |                     |
| Power<br>read-back<br>value   | Range           | 0~400W              | 0~200W             | 0~400W              |
|                               | Resolution      | 10mW                |                    |                     |
|                               | Accuracy        | ±(0.1%+0.5%FS)      |                    |                     |
| Scope of protection           |                 |                     |                    |                     |
| Over Voltage Protection(OV)   |                 | >155V cut off input |                    | >510V cut off input |
| Over Current Protection(OC)   |                 | >42A cut off input  | >22A cut off input | >16A cut off input  |
| Over Power Protection(OP)     |                 | 420W                | 220W               | 420W                |
| Over Temperature Protection   |                 | 85℃                 |                    |                     |
| Short Circuit                 | Current (CC)    | ≒3A<br>≒40A         | ≒3A<br>≒20A        | ≒3A<br>≒15A         |
|                               | Voltage (CV)    | 0V                  |                    |                     |
|                               | Resistance (CR) | ≒40mΩ               |                    |                     |

**General technical specifications:**

- Power supply voltage: 100Vac $\pm$ 10%~240Vac $\pm$ 10%, 50/60Hz
- Display: 2.8-inch TFT LCD screen with resolution of 320×240
- Operating temperature: 0℃ to 40℃
- Storage temperature: -10℃ to 70℃
- Relative humidity: < 80%
- Interface: standard USB, optional RS232(or 485)
- Size: 90mm×190mm×300mm (width × height × depth)

**Standard accessories:**

- Power cord \* 1
- Power fuse \* 2
- User manual\* 1

**Optional Accessories:**

- Light disk
- USB cable
- RS232/ 485 cable