

Power Electric Tester

III. TH8400 Series Programmable DC Electronic Load

Features

- High resolution:1mV/0.1mA
- Up to 25kHz dynamic frequency
- Up to 500kHz sampling speed
- Low ripple and low noise
- Voltage/current ripple, peak, peak-valley measurement
- Voltage/current waveform display
- 11 kinds of operation and measurement functions
- 4.3-inch 24-color 480X272 TFT LCD screen, Chinese and English interface
- Numeric keyboard and knob operation
- Screen copy function
- Remote compensation function
- Intelligent fan control
- Protection mode: over voltage, over current, over power
- Support U disk file storage and loading, program upgrade
- Software control and detection through computer
- Equipped with HANDLER interface for automatic matching
- SCPI command protocol



| | | | |
|----------|----------|------------|-----------|
| RS232 | USB HOST | USB DEVICE | I-MONITOR |
| standard | standard | standard | standard |

Shelf dimension(mm):215(W)×88(H)×390(D)

Exterior dimension(mm):236(W)×111(H)×454(D)

Weight:3kg(TH8401/TH8411), 4.8kg(TH8402A/TH8402/TH8412)

Application

- Power supply
Chargers, switching power supplies, communication power supplies, LED drivers, mobile phone batteries, power banks, etc.
- New energy
Solar cells, new power cars, electric bicycles
- Electronic power components
Fuse/connector/relay/sensor
- Automation equipment integration test

Specifications

| Model | TH8401 | | TH8402 | | TH8402A | | TH8403 | | TH8404 | | TH8405 | | TH8411 | | TH8412 | | |
|--------------------------|---|-----------------|--------|--|---------|---------------|--------|------------------|--------|---------------|--------|--|--------|------------------|--------|-----------------|--------|
| Rated value | Power | 175W | | 350W | | 350W | | 1000W | | 1500W | | 2000W | | 175W | | 350W | |
| | Voltage | 0~15V | 0~150V | 0~15V | 0~150V | 0~15V | 0~150V | 0~15V | 0~150V | 0~15V | 0~150V | 0~15V | 0~150V | 0~50V | 0~500V | 0~50V | 0~500V |
| | Current | 0~3A | 0~30A | 0~3A | 0~30A | 0~6A | 0~60A | 0~12A | 0~120A | 0~18A | 0~180A | 0~24A | 0~240A | 0~1.5A | 0~15A | 0~3A | 0~30A |
| | Minimum operating voltage | 1.5V@30A | | 1.2V@30A | | 1.5V@60A | | 1.5V@120A | | 1.5V@180A | | 1.5V@240A | | 3V@15A | | 3V@30A | |
| Minimum rise time | 20μs | | | | | | | | | | | | | | | | |
| CV mode | Range | 0~15V | 0~150V | 0~15V | 0~150V | 0~15V | 0~150V | 0~15V | 0~150V | 0~15V | 0~150V | 0~15V | 0~150V | 0~50V | 0~500V | 0~50V | 0~500V |
| | Resolution | 1mV | 10mV | 1mV | 10mV | 1mV | 10mV | 1mV | 10mV | 1mV | 10mV | 1mV | 10mV | 1mV | 10mV | 1mV | 10mV |
| | Accuracy | 0.05%+0.05%FS | | | | | | | | | | | | | | | |
| CC mode | Range | 0~3A | 0~30A | 0~3A | 0~30A | 0~6A | 0~60A | 0~12A | 0~120A | 0~18A | 0~180A | 0~24A | 0~240A | 0~1.5A | 0~15A | 0~3A | 0~30A |
| | Resolution | 0.1mA | 1mA | 0.1mA | 1mA | 0.1mA | 1mA | 0.1mA | 1mA | 0.1mA | 1mA | 0.1mA | 1mA | 0.1mA | 1mA | 0.1mA | 1mA |
| | Accuracy | 0.05%+0.05%FS | | | | | | | | | | | | | | | |
| CR mode | Range | 0.05Ω~50kΩ | | 0.05Ω~50kΩ | | 0.05Ω~25kΩ | | 0.02Ω~50kΩ | | 0.02Ω~50kΩ | | 0.01Ω~25kΩ | | 0.2Ω~50kΩ | | 0.1Ω~50kΩ | |
| | Resolution | 0.05Ω | | | | | | | | | | | | | | | |
| | Accuracy | 1% | | | | | | | | | | | | | | | |
| CP mode | Range | 0~175W | | 0~350W | | 0~350W | | 0~1000W | | 0~1500W | | 0~2000W | | 0~175W | | 0~350W | |
| | Resolution | 10mW | | 10mW | | 10mW | | 10mW | | 10mW | | 10mW | | 10mW | | 10mW | |
| | Accuracy | 0.5%+0.1%FS | | | | | | | | | | | | | | | |
| Dynamic mode | Range | 20 μs ~ 60S | | | | | | | | | | | | | | | |
| | Resolution | 2 μs | | | | | | | | | | | | | | | |
| | Accuracy | 2μs+100ppm | | | | | | | | | | | | | | | |
| | Rise rate | 0.6A/ms~1.5A/μs | | 0.6A/ms~1.5A/μs | | 1.2A/ms~3A/μs | | 2.4A/ms~6A/μs | | 3.6A/ms~9A/μs | | 4.8A/ms~12A/μs | | 0.3A/ms~0.75A/μs | | 0.6A/ms~1.5A/μs | |
| voltage measurement | Range | 0~15V | 0~150V | 0~15V | 0~150V | 0~15V | 0~150V | 0~15V | 0~150V | 0~15V | 0~150V | 0~15V | 0~150V | 0~50V | 0~500V | 0~50V | 0~500V |
| | Resolution | 1mV | 10mV | 1mV | 10mV | 1mV | 10mV | 1mV | 10mV | 1mV | 10mV | 1mV | 10mV | 1mV | 10mV | 1mV | 10mV |
| | Accuracy | 0.08%+0.05%FS | | | | | | | | | | | | | | | |
| current measurement | Range | 0~3A | 0~30A | 0~3A | 0~30A | 0~3A | 0~30A | 0~12A | 0~120A | 0~18A | 0~180A | 0~24A | 0~240A | 0~1.5A | 0~15A | 0~3A | 0~30A |
| | Resolution | 0.1mA | 1mA | 0.1mA | 1mA | 0.1mA | 1mA | 0.1mA | 1mA | 0.1mA | 1mA | 0.1mA | 1mA | 0.1mA | 1mA | 0.1mA | 1mA |
| | Accuracy | 0.08%+0.05%FS | | | | | | | | | | | | | | | |
| ripple | Range | 0~15V | 0~150V | 0~15V | 150V | 0~15V | 150V | 0~15V | 0~150V | 0~15V | 0~150V | 0~15V | 0~150V | 0~50V | 0~500V | 0~50V | 0~500V |
| | Bandwidth | 250kHz | | | | | | | | | | | | | | | |
| | Accuracy | 0.1% | | | | | | | | | | | | | | | |
| Protection function | Over voltage protection (OVP) Over current protection (OCP) Over power protection (OPP) | | | | | | | | | | | | | | | | |
| Storage | Internal: 40 groups | | | | | | | | | | | | | | | | |
| Specification | | | | | | | | | | | | | | | | | |
| Volume (mm) (W*H*D) | 215×88×390 | | | Shelf dimension(mm): 215×88×390 Exterior dimension(mm): 236×111×454 | | | | 430mm*88mm*529mm | | | | Shelf dimension(mm): 215×88×390 Exterior dimension(mm): 236×111×454 | | | | | |
| Weight | 3kg | | | 4.8kg | | 4.8kg | | 13kg | | 15.5kg | | 18kg | | 3kg | | 4.8kg | |
| Power | Supply voltage: 220V(±10%), Supply frequency: 50Hz/60Hz(±5%), Power consumption: <50VA | | | | | | | | | | | | | | | | |
| Temperature and humidity | 0°C~40°C, humidity: <90%RH | | | | | | | | | | | | | | | | |

Standard Accessories

YT3008 Test Cable(TH8403 / TH8404 / TH8405 none)