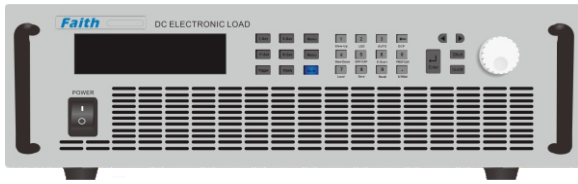


FT6300A series

Small and medium power electronic load



Characteristic

- Voltage level: 120V, 500V;
- Scope of power: 150W / 300W / 600W / 900W / 1350W / 1800W;
- On-load current range up to 240A, safe, stable, reliable and durable;
- Dynamic test frequency up to 20kHz, slope adjustable (for FT6309A-FT6319A);
- Constant voltage, constant current, constant resistance and constant power four test modes;
- Quick call, one-key call test function;
- Sequence test, can simulate the actual load complex changes;
- Intelligent automatic test function, automatic completion of quality judgment;
- Battery internal resistance and battery capacity test;
- Supports remote sampling to compensate voltage drop;
- OCP test, automatically find the overcurrent protection point;
- Intelligent fan control to reduce noise;
- High definition, high brightness display (VFD);
- Keyboard with knob setting, easy to operate;
- Over-voltage/over-current/over-power/over-temperature/polarity reverse protection functions;
- Rich SCPI commands, convenient for the establishment of intelligent test platform and secondary development;
- Standard RS232 interface, remote control can be achieved by computer.

SCPI with remote control

The FT6200 series supports standard SCPI commands, through which all functions of panel operations can be implemented. This provides convenience for the establishment of intelligent test platform and the secondary development of users. The FT6200 series provides easy remote control of electronic loads via the RS232 interface.



Summary

The FT6300 series electronic load is available in a variety of models with power from 150W to 1800W and current up to 240A. It is mainly used in the testing of various chargers/adapters, switching power supplies, LED drivers, power batteries, communication power supplies, fuses, solar cells and their components.

The FT6300 series provides basic functions such as CC, CV, CR and CP. Dynamic and sequential testing to simulate various load changes; Intelligent automatic test function can greatly improve the production line test efficiency.

The FT6300 series is equipped with RS232 interface and supports standard SCPI command. All functions of panel operation can be realized through SCPI command, which provides convenience for the establishment of intelligent test platform and the secondary development of users.

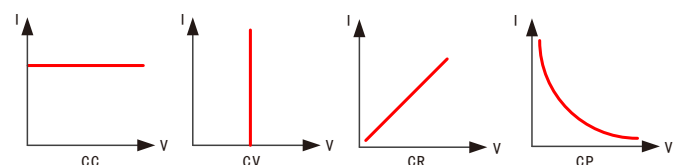


Automatic test

The FT6300 series features flexible automated testing. In the automatic test, CC, CV, CR, CP and other test modes are included, which can compare the test parameters with the corresponding upper and lower limits, and finally display the test results in the form of PASS or FAILED. The fully automatic operation mode can greatly improve the test efficiency.

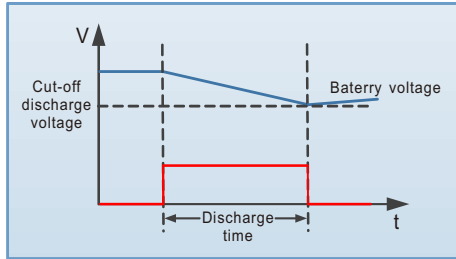
Constant state function

FT6300 series electronic load has four test modes of constant current, constant voltage, constant resistance and constant power to meet a wide range of test requirements. Constant current and constant resistance modes can be used to test whether the output voltage of the voltage source maintains a stable output under different load conditions. For battery chargers and adapters, constant voltage mode can change the output voltage of the charger and adapter to verify that the output current is correct.



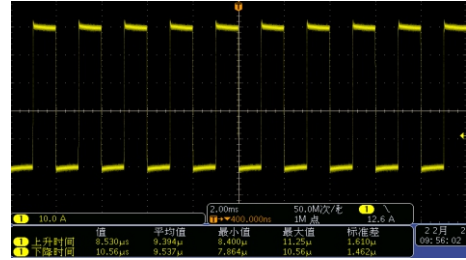
Battery test function

To facilitate battery testing, the FT6300 series offers a battery test function. Battery test includes: battery internal resistance test and battery capacity test. Constant current CC mode is used to test the battery capacity, and only need to set the battery protection voltage and discharge current during the test. Load automatically records voltage, current, time, AH number, below the protection voltage, the load automatically stops testing. With software, more parameters can be tested and analyzed.



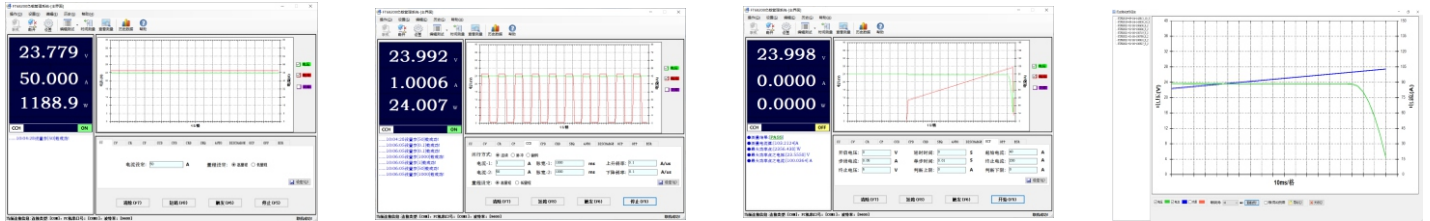
Dynamic function

The FT6300 series of electronic loads provides programmable dynamic testing capabilities. Dynamic test function includes continuous, pulse, flip three ways, support load slope setting. The dynamic mode is used to simulate various on-load mutations and anomalies, and is suitable for testing the dynamic characteristics of the power supply, the stability of the power supply, the protection point and protection time of the battery, and the burst on-load simulation of various pulses.

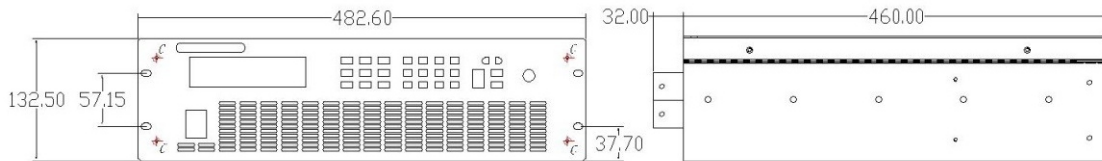


Computer graphical operation software

FT6300 series provides a host computer software with virtual instrument function, which can read test data in real time, generate images, export reports, print reports, etc., which is convenient for customers to use.



Dimension Drawing



FT6309A~FT6319A Dimension Drawing

Ordering information

Model	Specification	Dimension	Model	Specification	Dimension
FT6301A	120V/30A/150W	1/2 3U	FT6309A	120V/120A/900W	3U
FT6302A	120V/30A/300W	1/2 3U	FT6310A	500V/30A/900W	3U
FT6303A	500V/15A/300W	1/2 3U	FT6313A	120V/180A/1350W	3U
FT6304A	120V/60A/300W	1/2 3U	FT6314A	500V/45A/1350W	3U
FT6305A	500V/30A/600W	1/2 3U	FT6318A	120V/240A/1800W	3U
FT6306A	120V/120A/600W	1/2 3U	FT6319A	500V/60A/1800W	3U

*Optional test cables and other optional parts, the relevant specifications, models, see the "Optional Accessories" section of this manual for details.

Specification parameters-1

Model	FT6301A	FT6302A	FT6303A	FT6304A	FT6305A	FT6306A
Voltage	0~120V	0~120V	0~500V	0~120V	0~500V	0~120V
Current	0~30A	0~30A	0~15A	0~60A	0~30A	0~120A
Power	150W	300W	300W	300W	600W	600W
Minimum operating voltage	1. 2V@30A	1V@30A	1. 6V@15A	1. 5V@60A	1. 5V@30A	1. 8V@120A
Constant voltage						
Range	20V/120V	20V/120V	50V/500V	20V/120V	50V/500V	12V/120V
Resolution	1mV/10mV	1mV/10mV	1mV/10mV	1mV/10mV	1mV/10mV	1mV/10mV
Low precision	0. 05%+4mV	0. 05%+4mV	0. 05%+10mV	0. 05%+4mV	0. 05%+10mV	0. 05%+3mV
High precision	0. 05%+30mV	0. 05%+30mV	0. 05%+130mV	0. 05%+30mV	0. 05%+130mV	0. 05%+30mV
Constant current						
Range	3A/30A	3A/30A	3A/15A	6A/60A	3A/30A	12A/120A
Resolution	0. 1mA/1mA	0. 1mA/1mA	0. 1mA/1mA	0. 1mA/1mA	0. 1mA/1mA	1mA/10mA
Low precision	0. 05%+3mA	0. 05%+3mA	0. 05%+1. 5mA	0. 1%+6mA	0. 1%+3mA	0. 1%+12mA
High precision	0. 1%+30mA	0. 1%+30mA	0. 1%+15mA	0. 1%+60mA	0. 1%+30mA	0. 1%+120mA
Constant resistance mode (input voltage and current value $\geq 10\%$ of full scale)						
Low range	0. 1~10 Ω	0. 1~10 Ω	0. 1~10 Ω	0. 1~10 Ω	0. 1~10 Ω	0. 1~10 Ω
High range	10. 00~4k Ω	10. 00~4k Ω	10. 00~4k Ω	10. 00~4k Ω	10. 00~4k Ω	10. 00~4k Ω
Resolution	16bit	16bit	16bit	16bit	16bit	16bit
Low precision	0. 35%+0. 08S	0. 35%+0. 08S	0. 35%+0. 08S	0. 35%+0. 08S	0. 35%+0. 08S	0. 35%+0. 08S
High precision	0. 35%+0. 008S	0. 35%+0. 008S	0. 35%+0. 008S	0. 35%+0. 008S	0. 35%+0. 008S	0. 35%+0. 008S
Constant power mode (input voltage and current value $\geq 10\%$ of full scale)						
Range	100W/150W	100W/300W	100W/300W	100W/300W	100W/600W	100W/600W
Resolution	1mW/10mW	1mW/10mW	1mW/10mW	1mW/10mW	1mW/10mW	1mW/10mW
Low precision	1%+100mW					
High precision	1%+150mW	1%+300mW	1%+300mW	1%+300mW	1%+600mW	1%+600mW
Current measurement						
Low precision	0. 1%+3mA	0. 1%+3mA	0. 1%+3mA	0. 1%+12mA	0. 1%+3mA	0. 1%+12mA
High precision	0. 1%+30mA	0. 1%+30mA	0. 1%+15mA	0. 1%+60mA	0. 1%+30mA	0. 1%+120mA
Voltage measurement						
Low precision	0. 02%+4mV	0. 02%+4mV	0. 02%+10mV	0. 02%+4mV	0. 02%+10mV	0. 02%+3mV
High precision	0. 02%+30mV	0. 02%+30mV	0. 02%+130mV	0. 02% + 30mV	0. 02%+130mV	0. 02%+30mV
Power measurement						
Precision	1%+150mW	1%+300mW	1%+300mW	1%+300mW	1%+600mW	1%+600mW
Transient mode	Frequency range: 0. 083Hz~1kHz					
Equipment size	213(W)×134(H)×374(D)(FT6301A/FT6302A/FT6303A/FT6304A)					
(mm)	213(W)×134 (H)×594(D)(FT6305A/FT6306A)					

Model	FT6309A	FT6310A	FT6313A	FT6314A	FT6318A	FT6319A
Voltage	120V	500V	120V	500V	120V	500V
Current	120A	30A	180A	45A	240A	60A
Power	900W	900W	1350W	1350W	1800W	1800W
Minimum operating voltage	2. 5V@120A	5V@30A	2. 5V@180A	5V@45A	2. 5V@240A	5V@60A
Constant current						
Range	12A/ 120A	3A/30A	18A/180A	4. 5A/45A	24A/240A	6A/60A
Resolution	0. 2mA/2mA	0. 05mA/0. 5mA	0. 3mA/3mA	0. 8mA/8mA	0. 4mA/4mA	1mA/10mA
Low precision	0. 1%+0. 1%F. S.					
High precision	0. 1%+0. 1%F. S.					
Constant voltage						
Range	20V/ 120V	50V/500V	20V/120V	50V/500V	20V/120V	50V/500V
Resolution	0. 4mV/2mV	0. 9mV/9mV	0. 4mV/2mV	0. 9mV/9mV	0. 4mV/2mV	0. 9mV/9mV
Low precision	0. 05%+0. 1%F. S.					
High precision	0. 05%+0. 1%F. S.					
Constant power*2						
Range	0~900W	0~900W	0~1350W	0~1350W	0~1800W	0~1800W
Resolution	15mW	15mW	22. 5mW	22. 5mW	30mW	30mW
Precision	1%+0. 5%F. S.					
Constant resistance*2*3						
Low range	0. 025~50Ω	0. 25~500Ω	0. 0167~33. 3Ω	0. 167~333Ω	0. 0125~25Ω	0. 125~250Ω
High range	0. 6~1200Ω	10~20000Ω	0. 4~800Ω	6. 67~13333Ω	0. 3~600Ω	5~10kΩ
Resolution	16bit					
Low precision	0. 2%+0. 009S	0. 2%+0. 0125S	0. 2%+0. 018S	0. 2%+0. 005S	0. 2%+0. 018S	0. 2%+0. 024S
High precision	0. 2%+0. 002S	0. 2%+160uS	0. 2%+0. 004S	0. 2%+240uS	0. 2%+0. 004S	0. 2%+300uS
Slope						
Current range	0~120A	0~30A	0~180A	0~45A	0~240A	0~60A
Slope	0. 1~5A/us	0. 01~1. 25A/us	0. 15~7. 5A/us	0. 1~1. 8A/us	0. 2~10A/us	0. 1~2. 5A/us
Precision	(1±35%) ×Setting value					
Measurement						
Voltage measurement						
Range	12V/ 120V	50V/500V	12V/120V	50V/500V	12V/120V	50V/500V
Resolution	0. 2mV/2mV	0. 9mV/9mV	0. 2mV/2mV	0. 9mV/9mV	0. 2mV/2mV	0. 9mV/9mV
Precision	0. 05%+0. 1%F. S.					
Current measurement						
Range	12A/ 120A	3A/30A	18A/180A	4. 5A/45A	24A/240A	6A/60A
Resolution	0. 2mA/20mA	0. 05mA/5mA	0. 3mA/3mA	0. 8mA/8mA	0. 4mA/4mA	1mA/10mA
Precision	0. 05%+0. 1%F. S.					
Temperature						
Protection temperature	85℃					
Operating temperature	0~40℃					
Full power operating temperature	0~25℃					
Other characteristic						
Weight	18kg	18kg	20kg	20kg	22kg	22kg
Dimension(mm)	427 (W) × 135 (H) × 460 (D)					

*All specifications are subject to change without notice.

1. Meet rated specifications within an ambient temperature range of 25±5℃.

2. If the operating voltage exceeds 1.05 times the rated voltage, permanent damage to the device may occur.