

FTI5000 series

Fuse tester



Characteristics

- With a variety of current specifications, up to 20000A;
- With stand-alone system (4U volume), desktop system, separated system three options;
- Separate system support 10 ~ 1500V multi-voltage specification optional;
- Test current: DC, 1 ~ I_{max}, adjustable;
- Current accuracy: 0.5%;
- Current rise can be set, the minimum time: ≤1ms;
- Timing resolution: 0.1ms;
- 10 times current time error ≤1ms;
- With durability test function, through, short test time can be set;
- With the current step test function, test step length, current and cycle times can be set;
- With the current gradient test function, the load with load current and timing can be edited (in line with GB/T 31465.1-2015 test requirements);
- With current cycle test function (current impact waveform meets GB/T 31465.1-2015 and IEC60296-6:2010 test requirements);
- With 2CH temperature sampling and 1CH voltage sampling, can collect fuse temperature and voltage drop;
- Equipped with a variety of communication interfaces: RS485, LAN, CAN;
- 7" touch screen operation, Chinese and English menu interface.



Summarize

FTI5000 fuse tester, is for all kinds of fuses, fuses and other products testing, verification and design of professional equipment. Can meet: GB/T 9364.1-2015 small fuse Part 1: small fuse definition and small fuse body general requirements, GB/T 9364.2-2018 small fuse part 2: tubular fuse and GB/T 9364.3-2018 small fuse Part 3: Test requirements for related fuses and durability tests in ultra-small fuses.

FTI5000 is equipped with high-performance test equipment, which can simulate various conditions of test, such as durability test, fuse timing, pulse test, current cycle impact, current gradient test and other characteristics test. The tester also has the function of voltage and temperature measurement, which can test the voltage drop and temperature of the fuse and automatically calculate the equivalent resistance value and power loss value. In the test process, it can display the carrier pattern in real time and support the test data saving and exporting.

Application Areas

- Fuse and fuse testing;
- Wiring harness testing;
- Terminal and connector testing;
- Automotive electrical box and relay testing;
- Device quality testing.

Current work step test

The timing sequence of test current can be edited to simulate complex test sequences and realize multi-current switching test requirements. The maximum length of work step test is 100 steps, and the range of single step test time is 0.1ms-99999s. the maximum number of work step cycle is 60,000 times.

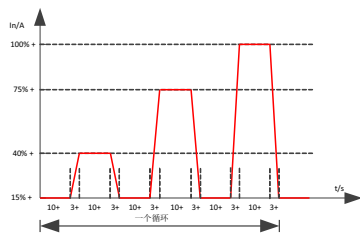


Durability testing

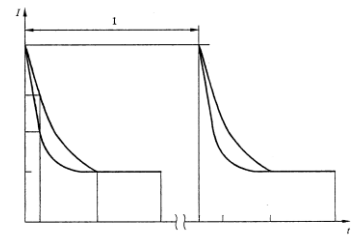
Durability test (also known as aging test). FTI5000 series can be set from 0 to 999 cycles, power-on time can be set from 1 minute to 120 hours, and power-off time can be set from 1 minute to 120 hours.

Current cycling impulse

Sequential test curves can be fitted according to the requirements of national standard (GBT 31465.1-2015) and IEC60296-6:2010 current cycling test waveform. Allow cycle test 50000 times. If the test is not fused at the end of the test, the test result and the number of cycles are given. During the test, fusing occurs, record the fusing time and cycle times.



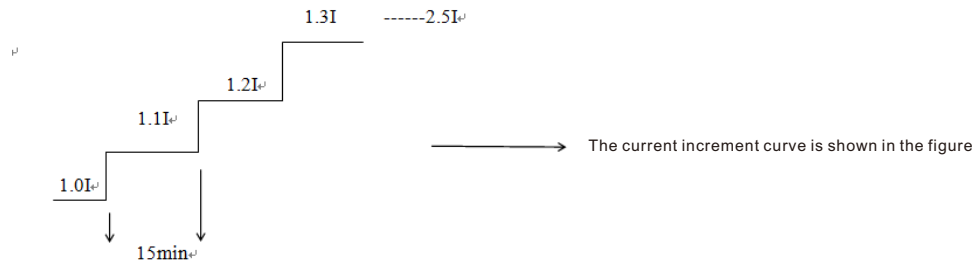
IEC60296-6:2010 Current cycling test waveforms



GBT 31465.1-2015 Current cycling inrush pulse

Current gradient test

Incremental current test, every interval of a certain period of time incremental starting current of 10%, the test process of the product fused, will display "fused" and give display prompts, incremental to 2.5 times the current of the product is not fused then display "test complete". Time interval range: 0.01s-3600s.



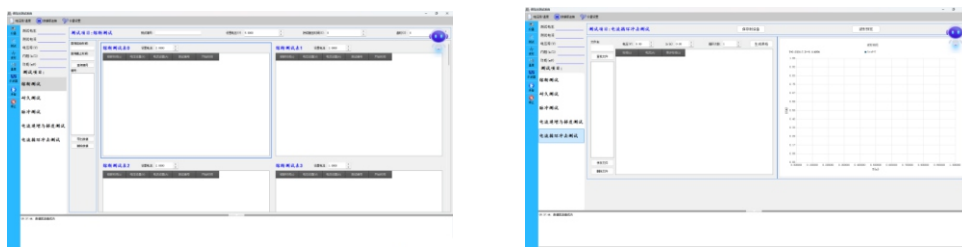
Fusing test

FTI5000 series fuse tester fusing time accurate milliseconds timing. 10 times the rate of current test, time error $\leq 1\text{ms}$. after the fuse automatically enter the continued pressure (0 ~ 9.9 minutes can be set). Under the fusing test, the test timeout time can also be set. When the test time exceeds the timeout time, the test will be automatically terminated.



PC graphical operation software

FTI5000 series provides an upper computer software with virtual instrument function, which can read the test data in real time, export the report, print the report and so on, which is convenient for users.



Ordering information

Model	Current	Maximum test power	Cabinet method
FTI5015-100	100A	1500W	Standalone countertop (4U)
FTI5015-200	200A	3000W	Standalone countertop (4U)
FTI5015-400	400A	6kW	Desktop system
FTI5015-600	600A	9kW	Desktop system
FTI5015-800	800A	12kW	Desktop system
FTI5015-1000	1000A	15kW	Desktop system
FTI5015-1200	1200A	18kW	Desktop system
FTI5015-1500	1500A	22.5kW	Desktop system
FTI5015-2000	2000A	30kW	Desktop system
FTI5015-3600	3600A	54kW	Desktop system
FTI5015-5400	5400A	81kW	Desktop system
FTI5010-7200	7200A	72kW	Desktop system
FTI5010-8400	8400A	84kW	Desktop system
FTI5010-10000	10000A	100kW	Desktop system

*Other voltage, current or power specifications are accepted for customization

Specification table

There are many models of FTI5000 series, only some of them are listed for reference

Model	FTI5015-200	FTI5015-400	FTI5015-600	FTI5015-1000	FTI5015-2000
Test voltage	15V (non-adjustable)				
Current test range*1	0~200A	0~400A	0~600A	0~1000A	0~2000A
Maximum instantaneous test power	3000W	6000W	9000W	15000W	30000W
I _{max} minimum rise time	≤1ms	≤1ms	≤1ms	≤1ms	≤1ms
Minimum current resolution	0. 001A	0. 001A	0. 001A	0. 001A	0. 001A
Current accuracy*2	≤0. 5%	≤0. 5%	≤0. 5%	≤0. 5%	≤0. 5%
Time measurement resolution	0. 1ms	0. 1ms	0. 1ms	0. 1ms	0. 1ms
Time measurement accuracy (10x Current)	≤1ms	≤1ms	≤1ms	≤1ms	≤1ms
Temperature acquisition channels	1CH				
Temperature measurement type	Type K thermocouple				
Temperature measurement accuracy	1℃+0. 5%				
Voltage acquisition channels	1CH				
Voltage measurement range	0~40V				
Voltage measurement accuracy	0. 025%+0. 025%F. S.				
Other specifications					
AC input	Single-phase, 220VAC	Three-phase, 340VAC to 420VAC, frequency 47Hz to 63Hz			
Operating tempeture	0℃~40℃				
Storage temperature	-20℃~70℃				
Altitude of use	<2000m				

Note:

*1. When the test current is below 0.1% F.S., the fuse time cannot be obtained under the fuse test function.

*2. This is the current accuracy for 10% to 100% *I. The accuracy below 10% *I is 0.1% + 0.1% F.S.