

# Transformer, Motor and Winding Test Instruments

## B. STB8883 Series Impulse Winding Tester



### STB8883 Series

#### Features

- The first provider of impulse winding tester from low voltage of 30V to high voltage of 10kV, single channel to multichannel in this industry (Max.:8 channels)
- First winding tester compatible with LXI standard
- Impulse voltage of 30V~10kV
- Minimum inductance value of winding that can be tested: 1uH
- 65k color 7" TFT wide display screen
- Up to 200Mpsps waveform sampling rate
- Maximum measuring speed: 6meas/sec
- Storage depth of 6k Bytes
- High bandwidth analog acquisition circuit
- High-fidelity corona extraction algorithm (patent technology)
- Four waveform comparison methods
- Automatic storage of instrument parameters
- Measurements on voltage, time and frequency
- Amplification, stretch and movement of the waveform for accurate display
- Multi-sample average, average processing of 32 standard waveforms
- Destructive testing for your correct choose of voltage
- Use demagnetized impulse to ensure the conformity of tested waveforms
- Login of different user right for easy management
- 20 groups of instrument files can be stored and automatically loaded
- Screen information can be stored in USB disk (COPY key)
- System firmware can be automatically upgraded through USB-disk
- Selectable Chinese and English operation interfaces
- Four selectable display interface effects
- Foot control interface for easy measurements
- Handler interface to realize on-line operation
- RS232C, USB Device and LAN interface to realize remote control

#### Brief Introduction

■ STB8883 series products are newly developed impulse winding testers by Tonghui. This product line makes Tonghui as the first provider of impulse winding tester from low voltage of 30V to high voltage of 10kV, single channel to multichannel (Max.:8 channels) in this industry. The instrument adopts popular 32 bit CPU and high density SMD technology, 65k color 7-inch TFT wide display screen, bringing ease for your eyes and convenience to your operation. The minimum impulse voltage of 30V, maximum impulse voltage output of 10kV, winding test of 1uH inductance value, sampling rate of 200Mpsps, memory depth of 6k bytes makes your test accurately. The usage of standard sample average, application of demagnetized impulse, high bandwidth analog acquisition circuit, technology of high-fidelity corona extraction as well as the opening of non-destructive test reflect the design philosophy "customer-oriented, share the future technology with you" of Tonghui.

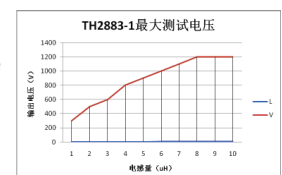
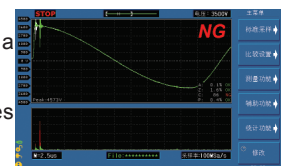
According to the output voltage, STB8883 series is consist of 3 models:STB8883-1, STB8883-5 and STB8883-10. With minimum impulse voltage of 30V and maximum impulse voltage of 1200V, STB8883-1 low inductance impulse winding tester can test windings of 1uH low inductance value. The instrument is the ideal test product for inductance coils used by switching power supply. With impulse voltage of 100V~5000V, STB8883-5 is a standard product for testing all kinds of coils. With maximum impulse output voltage of 10kV, STB8883-10 is appropriate for interturn test of higher insulation and voltage resistance.

Standard-equipped USB Host, RS232C, USB Device and LAN interface of STB8883 series product are convenient for your fast storage of graphs and remote control.

#### Corona extraction function

With high-fidelity corona extraction and high bandwidth analog acquisition circuit,STB8883 series products can fully recover the corona waveform of high-frequency and makes you know more about the insulating property of products.

The maximum output test voltage of STB8883-1 is related to the load inductance value, as shown in the follow:



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### Specifications

Model	STB8883-1	STB8883-5	STB8883-10
Impulse voltage	30V-1200V 5V steps	100V-5000V 10V steps	500V-10kV 20V steps
Voltage accuracy	±(5% set value +5V)	±(5% set value +15V)	±(5% set value +25V)
Readback accuracy	±(5% actual value +5V)	±(5% actual value +15V)	±(5% actual value +25V)
Channels	1		
Inductance test range	≥1uH	≥10uH	≥20uH
Impulse energy	Max.: 0.02 Joule	Max.: 0.25 Joule	Max.: 0.5 Joule
Test speed	6 times/second	6 times/second	3 times/second (when 10kV impulse voltage is output)
Pulses applied	Max.: 32		
Input Impedance	5MΩ		
Display	800x480 dots, 65k color TFT; Waveform Display Range: 600x256		
Waveform Acquisition	Sampling rate: Max. 200Msps, 8 levels adjustable Resolution: 8 Bits Memory Depth: 6k Bytes Average: 1 to 32		
Comparison Methods	Comparison with Standard Waveform: <ul style="list-style-type: none"> <li>• Area Size Comparison</li> <li>• Differential Area Comparison</li> <li>• Corona Discharge Comparison</li> <li>• Differential Phase Comparison</li> </ul>		
Waveform Measurement	Voltage/Frequency/Time		
Trigger Mode	Manual/External/Bus/Internal		
Detection Output	OK/NG display/LED/ Alarm		
Measurement Statistics	Statistics for measurement results		
Memory	20 groups of standard waveform data and instrument setup can be stored in internal non-volatile memory. USB flash memory can be used as external memory.		
Interface	Handler, RS232C, USB Device, USB Host, LAN		
Power supply			
Power supply	220V ±10% 50Hz/60Hz ±5%		
Power consumption	≤200VA		
General conditions			
Working environment	Temperature	0℃ - 40℃	
	Humidity	≤75% R.H.	
Safety and electromagnetic compatibility	IEC61010-1:2001, IEC61326-2-1:2005		