

# Safety Tester/Hipot Tester

## E. TH9520 Winding Component EST Tester

### Features

- High-resolution: 7-inch 800 × 480 dots, TFT-LCD display
- Six-in-one comprehensive analysis, one machine can achieve the comprehensive test needs of coil components  
High-power AC withstand voltage analysis  
DC voltage analysis  
Insulation resistance analysis  
Turn-to-turn insulation analysis  
DC low resistance analysis  
Inductance test analysis
- Eight-channel switching technology that can test eight different components simultaneously
- 500VA power AC withstand voltage design, in line with UL 1004-1 motor test standards
- Insulation resistance test: maximum voltage can reach 5kV
- DC / IR automatic rapid discharge function
- Turn-to-turn insulation test: sampling ADC promoting to 12bit, 200MHz sampling rate
- DC low resistance test: support DC resistance calculation of  $\Delta$  Y-type motor
- DC low resistance temperature conversion function and optional temperature sensor
- Inductance test analysis of up to 100kHz frequency
- Quick contact check function to realize rapid detection of test fixture
- New-type high voltage test fixture  
Four-terminal Kelvin test of DC low resistance and inductance
- Test steps up to 32
- Internal file storage and external U disk file saving



**NEW**

### TH9520

Dimension(mm): 430(W)×177(H)×570(D)

Weight: 25kg

Standard RS232  USB HOST  USB DEVICE  HANDLER  LAN

Option GPIB

### Application

- Comprehensive analysis test of motors
- Comprehensive analysis test of transformers
- Comprehensive test of inductors
- Comprehensive analysis test of charging pile inductance characteristics
- Comprehensive analysis test of magnetic components

### Specifications

Model	TH9520		TH9520A			
Number of channels	8					
Withstand test						
Output voltage	AC	0.050 - 5.000kV, Step 0.001kV, Frequency 50Hz/60Hz $\pm 0.1\%$ , sinusoidal waveform				
	DC	0.050 - 6.000kV, Step 0.001kV				
	Accuracy	$\pm (1\% \text{ set value} + 0.1\% \text{ of full scale})$				
	Adjustment rate	$(1\% \text{ output} + 0.1\% \text{ of full scale})$ rated power				
Current range	AC	Voltage $\leq 4.000\text{kV}$ : 0.001mA - 120.0mA, Voltage $>$ 4.000kV: 0.001mA - 100.0mA		0.001mA - 40.0mA		
	DC	0.1 $\mu$ A - 20.00mA		0.1 $\mu$ A - 10.00mA		
	Accuracy	$\pm (1\% \text{ of reading} + 0.5\% \text{ of full scale})$ , AC Real: $\pm (1\% \text{ of reading} + 5\% \text{ of total current reading} + 5 \text{ digits})$				
Output power	AC:500VA DC:120VA		AC:200VA DC:60VA			
ARC	AC	1.0mA - 20.0mA, 0.1mA Step				
	DC	1.0mA - 10.0mA, 0.1mA Step				
Insulation resistance test						
Output voltage	0.050 - 5.000kV, Step 0.001kV Accuracy: $\pm (1\% \text{ of set value} + 0.1\% \text{ of full scale})$		0.050 - 1.000kV, Step 0.001kV Accuracy: $\pm (1\% \text{ of set value} + 0.1\% \text{ of full scale})$			
Resistance test range	0.100M $\Omega$ - 99.99G $\Omega$ Resolution: 0.1M $\Omega$					
Measurement accuracy	$\geq 500\text{V}$	1.000M $\Omega$ - 1.000G $\Omega$ , $\pm (3\% \text{ of reading} + 5 \text{ digits})$				
		1.000G $\Omega$ - 10.00G $\Omega$ , $\pm (7\% \text{ of reading} + 5 \text{ digits})$				
		10.00G $\Omega$ - 99.99G $\Omega$ , $\pm (10\% \text{ of reading} + 5 \text{ digits})$				
	$< 500\text{V}$	0.100M $\Omega$ - 1.000G $\Omega$ , $\pm (7\% \text{ of reading} + 5 \text{ digits})$ 1.000G $\Omega$ - 99.99G $\Omega$ , for reference only, no accuracy requirements				
Time setting						
Rise time	OFF, 0.1s - 999.9s, Step 0.1s					
Test time	0.1s - 999.9s, Step 0.1s					
Fall time	OFF, 0.1s - 999.9s, Step 0.1s					
Waiting time	OFF, 0.1s - 999.9s, Step 0.1s					
Turn-to-turn insulation test						
Output pulse voltage	0.01kV - 6.000kV, 0.01kV Step, $\pm 5\%$ set value $\pm 15\text{V}$		0.01kV - 3.000kV, 0.01kV Step, $\pm 5\%$ set value $\pm 15\text{V}$			
Inductance test range	$\geq 10\mu\text{H}$					
Pulse energy	up to 0.36 Joule					
Waveform Sampling	Sampling rate: 12bit, Sampling speed: 200MHz, adjustable 8-level, Memory depth: 12k Byte, Sample average: 1 - 32					
Number of applied pulses	up to 32					
Judgment method	Area comparison, area difference comparison, corona discharge, phase difference comparison					
DC low resistance test / $\Delta$ and Y type resistance test						
Test signal	100 m $\Omega$ 1A, 1 $\Omega$ 0.5A, others $\leq 3\text{V}$					
Test range	0.01m $\Omega$ - 1.2M $\Omega$					
Resistance	Range	0.01m $\Omega$ - 120.00m $\Omega$	0.1m $\Omega$ - 1200.0m $\Omega$	0.001 $\Omega$ - 12.000 $\Omega$	0.01 $\Omega$ - 120.00k $\Omega$	0.1k $\Omega$ - 1200.0k $\Omega$
	Accuracy	$\pm 0.5\%$ of reading + 0.04% of full scale	$\pm 0.3\%$ of reading + 0.03% of full scale	$\pm 0.2\%$ of reading + 0.03% of full scale	$\pm 0.1\%$ of reading + 0.03% of full scale	$\pm 0.2\%$ + 0.03% of full scale
Inductance test(standard)			Inductance test(option)			
Test parameters	Ls, Lp, Rs, Rp, Q					
Measurement accuracy	0.5%					
Test frequency	100Hz, 120Hz, 1kHz, 10kHz, 100kHz					
Test signal level	1.0Vrms, 10% accuracy					