

# Winding Component EST Tester SME1151 Series



## Features

- Six-in-one comprehensive analysis
  - 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 to test eight different component simultaneously.
- 500VA power AC withstand voltage design, in line with UL 1004-1 motor test standards.
- DC / IR automatic rapid discharge function
- Insulation resistance test : maximum voltage 5kV
- Turn to turn insulation test with 200MHz sampling rate & 12 bitADC
- DC low resistance test : support DC resistance calculation of  $\Delta$ /Y type motors
- 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
- Four terminal Kelvin test of DC low resistance and inductance
- Up to 32 Test steps
- Internal file storage and external U disk file saving
- High Resolution 7 inch 800 x 480 dots, TFT-LCD display

Technical Specifications		SME1151	SME1151A
Number of Channels		8	
<b>Withstand Test</b>			
Output Voltage	AC	0.050 to 5.000kV, Step 0.001kV, Frequency 50Hz / 60 Hz $\pm$ 0.1% sinusoidal waveform	
	DC	0.050 to 6.000kV, Step 0.001kV,	
	Accuracy	$\pm$ (1% set value + 0.1% of full scale)	
	Adjustment rate	(1% output + 0.1% of full scale) rated power	
Current Range	AC	Voltage $\leq$ 4.00kV : 0.001mA – 120.0mA Voltage > 4.000kV : 0.001mA – 100mA	0.001mA – 40.0 mA
	DC	0.1 $\mu$ A – 20.00mA	0.1 $\mu$ A – 10.00mA
	Accuracy	$\pm$ (1% of reading + 0.5% of full scale)	
Output Power		AC : 500VA, DC : 120VA	AC : 200VA, DC : 50VA
ARC	AC	1.0mA – 20.0mA, 0.1mA Step	
	DC	1.0mA – 10.0mA, 0.1mA Step	
<b>Insulation Resistance Test</b>			
Output Voltage		0.050 – 5.000kV, Step 0.001kV	0.050 – 1.000kV, Step 0.001kV
Accuracy		$\pm$ (1% of set value + 0.1 of full scale)	

Technical Specifications		SME1151			SME1151A	
<b>Insulation Resistance Test</b>						
Resistance Test Range		0.100MΩ – 50.00GΩ Resolution : 0.1MΩ			0.100MΩ – 10.00GΩ Resolution : 0.1MΩ	
Measurement Accuracy	≥ 500V	1.000MΩ – 1.000GΩ : ± (3% of reading + 5 digits)				
		1.000GΩ – 10.00GΩ : ± (7% of reading + 5 digits)				
		10.00GΩ – 99.99GΩ : ± (10% of reading + 5 digits)				
	< 500V	0.100MΩ – 1.000GΩ : ± (7% of reading + 5 digits)				
1.000GΩ – 99.99GΩ for reference only accuracy not specified						
<b>Time Setting</b>						
Test Time		0.1s – 999.9s, Step 0.1s				
Rise Time		OFF, 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				
<b>Interturn Insulation Test</b>						
Output Pulse Voltage		0.01kV – 6.000kV, 0.01kV Step			0.01kV – 3.000kV, 0.01kV Step	
Accuracy		± 5% set value ±15V				
Inductance Test Range		≥10μH				
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				
Comparison Method		Area, Area Difference, Corona Discharge, Phase Different				
<b>DC Low Resistance test / Δ and Y type Resistance Test</b>						
Test Signal		100mΩ / 1A, 1Ω / 0.5A, others ≤ 3V				
Test Range		0.01mΩ – 1.2MΩ				
Resistance	Range	0.01mΩ–120.00mΩ	0.01mΩ–1200.0mΩ	0.001mΩ–12.000Ω	0.01Ω–120.00kΩ	0.01kΩ–1200.0kΩ
	Accuracy	± (0.05% of reading + 0.04% of full scale)	± (0.3% of reading + 0.03% of full scale)	± (0.2% of reading + 0.03% of full scale)	± (0.1% of reading + 0.03% of full scale)	± (0.2% + 0.03% of full scale)
<b>Inductance test</b>						
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				
<b>General Specifications</b>						
Display		High Resolution 7 inch 800 x 480 dots, TFT-LCD display				
Interface		Standard : USB Device, USB Host, Handler, RS232, LAN, Optional : GPIB				
Input Supply		230V ± 10%, 50/60Hz				
Operating Condition		0 to 40° C Relative Humidity ≤ 80%				
Storage Condition		-10 to 40° C Relative Humidity ≤ 70%				
Dimension		W : 430 x H : 177 x D : 570 mm				
Weight		25 kg				
Accessories		Mains Cord, HV Probe Set (SMA90017A & SMA90019), CD, USB Cable				

Subject to change



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