

HTJS-M Capacitance & Tan-Delta Tester



I. Introduction

Dielectric Loss Measurement is very basic insulation testing method which can effectively found the deterioration damp deterioration of electrical equipment insulation, as well as local defects. In electrical manufacturing, electrical equipment installation, transfer and preventive tests are widely used. Measuring dielectric loss of transformers, CT/PT, reactors, capacitors, and bushings, surge arresters and other is the most basic measure of its insulating properties. HTJS-M tan delta tester breaks the traditional bridge measurement method, using variable frequency power supply technology, using SCM, and modern electronic technology for automatic frequency conversion, analog / digital conversion and data operations. With strong anti-jamming capability, fast test speed, high precision, automatic digitization, easy to operate; use switching power supply, 45Hz and 55Hz pure sine wave output, automatic apply voltage, providing a voltage up to 10 kV; automatically filter 50Hz interference, suit for substation and other strong electromagnetic interference field testing. Widely used in the power industry transformers, CT/PT, bushings, capacitors, surge arresters and other dielectric loss measurement equipment.

II. Features

- 1.The tester adopts complex current method, which measuring capacitance, dielectric loss, and other parameters. High accuracy of test results, easy to realize automated measurement.
- 2.The tester adopts frequency technology to eliminate the scene 50Hz frequency interference, even under the condition of strong electromagnetic interference, can get reliable data.
- 3.Adopts large-screen LCD display, easy to operate.
- 4.Measurement process is controlled by a microprocessor, as long as to choose correct measurement method, measurement data can be automatically finished under microprocessor control.
- 5.Integrated design, built-in standard capacitor and HV power supply, convenient for field test, reduce field wiring.
- 6.High accuracy. Equipped with standard oil cups and dedicated test lines can realize oil dielectric loss measurement.
- 7.Set CVT test function, can achieve CVT self-excited method test, without external attachments, only need to test one time, capacitance and dielectric loss of C1, C2 can all be measured.
- 8.Reverse wiring test uses ivddv technology, eliminating the previous reverse wiring data instability phenomenon.
- 9.With reverse wiring LV shielding function, under the condition of 220 kV CVT busbar grounding, can measure reverse wiring dielectric loss for C11 without dismantling wire 10KV.

10. With measuring HV dielectric loss function, can use HV transformer or series resonance to carry out exceed 10kV voltage dielectric loss test.

11. With ground protection and over-current protection functions.

12. With electric shock protection function, when the operator accidentally get an electric shock, the instrument will immediately cut off high voltage to ensure the safety of personnel.

III. Parameters

Accuracy	Cx	$\pm (\text{reading} \times 1\% + 1\text{pF})$
	tg δ	$\pm (\text{reading} \times 1\% + 0.00040)$
Anti-interference index	variable-frequency anti-interference, under 200% interference can still achieve the above accuracy	
Capacitance Range	internal HV	3pF~60000pF/10kV 60pF~1 μ F/0.5kV
	external HV	3pF~1.5 μ F/10kV 60pF~30 μ F/0.5kV
	resolution	Max: 0.001pF, 4 digits
tg δ range	Unlimited, resolution of 0.001%, automatically identify the tested samples of capacitance, inductance and resistance.	
Test Current Range	10 μ A~1A	
Power	2kVA	
Internal HV	Voltage range	0.5~10kV
	Max output current	200mA
	Step-up and step-down voltage mode	Continuous smooth adjustment
	Test Frequency	45、50、55、60、65Hz single-frequency 45/55Hz、55/65Hz、47.5/52.5Hz automatic dual variable-frequency
	Frequency Accuracy	$\pm 0.01\text{Hz}$
External HV	When forward wiring the max test current is 1A, power frequency or variable frequency is 40-70Hz	
	When reverse wiring the max test current is 10kV/1A, power frequency or variable frequency is 40-70Hz	
CVT self-excited method low voltage output	Output voltage 3 ~ 50V, output current 3 ~ 30A	
Measuring time	About 40 s, correlate with the measurement mode	
Input Power	180V~270VAC, 50Hz $\pm 1\%$	
Computer Interface	Standard RS232 interface	
Printer	A7 thermal mini printer	
Temperature	-10 $^{\circ}$ C~50 $^{\circ}$ C	
Relative Humidity	<90%	
Dimension	460x360x350mm ³	
Weight	28kg	

IV. Accessories



Host



CVT Wire



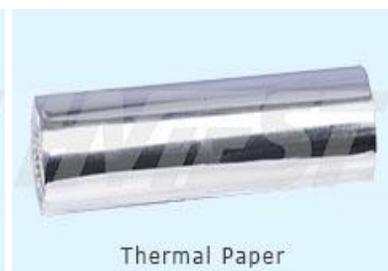
LV Cable



power cord



HV Cable



Thermal Paper



Ground Wire



Manual, Report, Certificate



fuse