



SIVA INSTRUMENTS

Semi Automatic C & Tan δ Bridge

Model : MLS-11DS & HLS-12SA



Semi Automatic C & Tan δ Test Set

This set includes Bridge Model:MLS11DS & HV Power Supply model :HLS12SA necessary cables & very flexible, user friendly.

Temp correction for the tan delta of object is automatically done as per IEC.

Suitable for measuring C & Tan δ for generators, transformers, bushings, circuit breakers, cables, motors at various test voltages upto 12kV.

Features

- 1) Direct reading No calculation required
- 2) Indication of Test Voltage / Leakage Current / Capacitance Value / Tan delta value Temperature and Humidity.
- 3) Data logging with graph of voltage vs Tan δ to know the tan δ gradient & data analysis for comparison with old results / manufacturer's data in PC Side Software
- 4) As per IEC Temperature correction for Tan δ @ 20Deg.
- 5) Executes all the test modes / voltage automatically once feed.
- 6) Built in Thermal Printer for ON site printout.
- 7) Interference suppression unit provided to work in switchyard under heavy induction.
- 8) 100 Results Data-storage.
- 9) Built in Temperature and Humidity
- 10) Mode of operation
 - 1) **UST** - Ungrounded Specimen test - This mode is used when the object under test is not grounded. This test provides most accurate results.
 - 2) **GST** - Grounded Specimen test. This mode is used when the object under test is permanently grounded.
 - 3) **GSTg** - Grounded specimen test with guard. 3 combinations.
This mode is used for measuring them stray capacitances and separating them from basic measurement in GST mode.

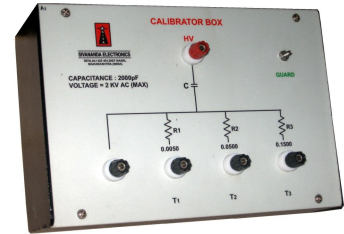
Measurements :

The system will provide following Information.

PARAMETER	RANGE	RESOLUTION	ACCURACY
CAPACITANCE	1pF to 1.1mfd	0.01pF	±0.2% of the reading ±1 pF in UST Mode
TAN DELTA	0 % – 100%	0.001%(0.00001)	± 1% of the reading ± 0.0002
VOLTAGE Measurement	100V –12kV	1.0 V	±1% of reading ±1digit
CURRENT Measurement	0 – 200 mA	1mA	±1 %, ±1digit
POWER FACTOR	0 – 1	0.01%(0.0001)	± 1% of the reading ±0.0002
POWER INPUT	230 Volts±10%,50Hz . Single phase.		
POWER OUTPUT	0-12KV , 200mA		
Temp. Correction	IEC Temperature Correction for Tan Delta Values.		
DATA STORAGE	More than 100 results storage memory.		
INDICATION	Large 4 line LCD		
INTERFACE	RS232 PORT,		
KEY BOARD	Multikey, alphanumeric Keypad		
SOFTWARE	PC side Windows based analysis software for downloaded data from Instrument		
OTHER PARAMETERS	Apparent Power, True Power, Reactive Power available in PC Side report		
IN BUILT STD CAPACITOR SF6	Capacitance- 100pF ± 0.5%, Tan d < 1 x10 ⁻⁴		
RESONATING INDUCTOR	Optional useful to increase the current rating suitable to measure 1.1mfd @ 12kV by expanding current capacity upto 2Amp if requested .		
PROTECTIONS	Zero Start, Interlocks, Open Ground, Over Current, Over Voltage, Over Temperature, Foot switch for HV ON.		
CABLES	HV Cable – 20 M length,5KV ,Double screened with hooks & clamps. LV Cable – 20 M length, screened cable, with hooks & clamps.-2Nos. Grounding Cable – 20M & 10M length with clips –2Nos. Footswitch – Footswitch with 5 Meter length cable. Interconnecting Cables, Mains chord, PC& Printer Cable.		
CALIBRATOR BOX	With one Capacitance & 3 Tan Delta values.Test Voltage 5kV.		
CARRING CASES	Suitable foam padded carrying cases for Bridge & Power Supply. Carrying Bag for Cables		
TEMP & HUMIDITY	10 ^o C – 50 ^o C with HUMIDITY : 30% Rh -90% Rh.		
DIMENSIONS	Power Supply : 540mm X 350mm X310mm Bridge : 540mm X 350mm X220mm		
Weight	Less than 50kg without Leads		

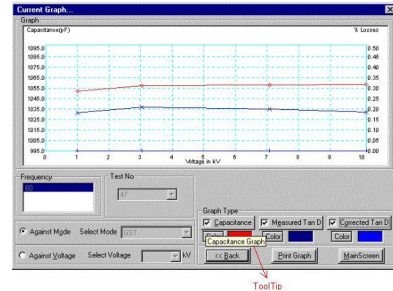
Calibrator Box

Calibrator Box with one C value & three Tan δ values is supplied with the kit.



Windows Based Download Software

This Windows Based Data Management & analysis software supplied with the kit for Voltage Vs Tan delta, Time Vs Tan delta trend analysis.



Digital Hygro-Thermometer.

Temperature Range : 0 to 100°C
Accuracy : ± 1 °C Resolution : 0.1 °C
Humidity Range : 20 to 99%RH
Accuracy : ± 5 %RH Resolution : 1% RH.



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