

# Semi Automatic Capacitance & Tan Delta Bridge with High Voltage Power Supply

Model : QCTD-M / QHVPS-12

## Application:

- Power Systems
- Motors
- Power Cables
- High Voltage Laboratories
- HT Transformers
- Bushings
- Power Capacitors
- Generators



## Features

- DIGITAL DISPLAY for Capacitance and Tan Delta, Voltage, Current and Test Mode
- NO NEED of calculation
- SAVING OF Result and INTERACTIVE DOWNLOAD SOFTWARE
- High Resolution for Tan Delta measurements 0.00001 ( $10^{-5}$ )
- Easy to use
- Safety Protections incorporated

## Technical Specification

PARAMETER	RANGE	RESOLUTION	ACCURACY
CAPACITANCE	0.01 (1000pF)	0.01pF	$\pm 0.1\%$ of the reading $\pm 1$ pF
	0.1 (10nF)	1pF	$\pm 0.1\%$ of the reading $\pm 10$ pF
	1 (100nF)	10pF	$\pm 0.1\%$ of the reading $\pm 100$ pF
TAN DELTA	0 - 0.1	0.00001	$\pm 1.0\%$ of the reading $\pm 5 \times 10^{-4}$
	0.1 - 1	0.0001	$\pm 1.0\%$ of the reading $\pm 5 \times 10^{-3}$
VOLTAGE	0-12 KV AC	0.01 KV	$\pm 2.0\%$ of the reading $\pm 1$ Digit
CURRENT	0-100mA	1mA	$\pm 2.0\%$ of the reading $\pm 1$ Digit

**Test Voltage** 0 to 10/12KV AC

**Rated Current** 100mA continuous

**Output Frequency** 50Hz (Lines Frequency)

Accuracies Applicable  $C_x > 100$ pF

**Switch for three different types measurement**

**Seven/ Three mode test operation**

**1. UST-** Ungrounded Specimen test. **2. GST** - Grounded Specimen test. **3. GSTg** - Grounded specimen test with Guard.

**Indication** : 20 X 4 LCD Display for Voltage & Current.

**Standard Capacitor** :100pF, 12KV built-in.

**Input Voltage** : 230VAC  $\pm 10\%$ , Single Phase, 50Hz.

Simplified Measurements Solutions

# Semi Automatic Capacitance & Tan Delta Bridge with High Voltage Power Supply

Model : QCTD-M / QHVPS-12

## Safety Features :

- Zero start control.
- Open ground indicating lamp with double ground connection.
- External Interlock
- HT cut off on overload.
- HT ON and Supply ON Indication.
- All operating controls at earth potential.
- Necessary terminals & Sockets for connection to Bridge.

## Scope of Supply

- Main Units Power supply and Bridge
- Interconnecting Leads
- Double Shield HV cable 10 meters
- Single Shield LV cable 10 meters
- Ground cable 5 Meters
- Safety switch

## Null Detector

Built in battery operated/ external powered electronic Null Detector. This type of Null detector is most suitable for balancing of the bridge. It gives high sensitivity and accuracy and it is very user friendly.

Phase sensitivity Null Detector can be given in place of electronic Null detector on request.

## Calibration Box (Optional)

One Known value capacitor with three different Tan Delta values Calibration Box. For quick evaluation for setup at site.

## Interference Cancellation Unit. (ICU) (Optional)

For situation where the pick up by the bridge is excessive, a separate multi level interference suppression unit can also be given with separate C & Tan delta adjustments.

## Resonating Inductor (Optional)

In case the test current requirement is more e.g. For testing Motors, Generators, Cables, etc with Resonating inductor capacitive current can be compensate by having same amount of Inductive current to enhance the requirement of high test currents.

## Data Logger (Optional)

Software CD and communication Port will be provided to record measured value to keep records, print the result with statistical data analysis.



## Ordering Information

- Interconnecting Leads set- QCTD /12M/LS
- Foot Switch- QCTD /12M/FS
- Instruction Manual- QCTD /12M/M
- Application Notes and Testing Guide- QCTD /12M/AN
- Set of Fuses- QCTD /12M/FS

## Optional

- Interference Compensation Unit (ICU)- QCTD – 12M/ICU
- Calibration Standard- QCTD – 12M/CS
- Carrying Case- QCTD – 12M/CC