

# Automatic Capacitance & Tan Delta Bridge

Model : QCTD-A

## Application:

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

## Features

- Automated Measurements of Capacitance and Tan Delta.
- Laptop based test operations.
- Temperature Correction for Tan Delta values at 20 Deg C
- Trend Analysis software for Tan Delta Vs Time, Tan Delta Vs Voltage.
- Robust, reliable and safe construction.
- Different voltage levels of models available as per the need of customer 5KV, 12KV, 15KV, etc.
- Help feature include Software Operational manual, technical knowhow of Tan Delta and Application Guide. It helps proper system set-up, connections of various objects with respect to their test modes, knowledge of interpretation of test results.



## Technical Specification

PARAMETER	RANGE	RESOLUTION	ACCURACY
CAPACITANCE	10pF - 0.1uF (100nF)	0.01pF	$\pm 0.3$ % of the reading $\pm 1$ pF (UST)
TAN DELTA	0-100%	0.00001	$\pm 1.0$ % of the reading $\pm 5 \times 10^{-4}$
VOLTAGE	0-12 KV AC	0.01KV	$\pm 1.0$ % of the reading $\pm 1$ Digit
CURRENT	0-100mA	1mA	$\pm 2.0$ % of the reading $\pm 1$ Digit

**Test Voltage** 0 to 12KV AC

**Rated Current** 100mA continuous

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

### Test Modes operation

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

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**Indication :** 3 ½ Digital panel meter for Voltage & Current.

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

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

## 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
- Software CD
- Double Shield HV cable 10 meters
- Single Shield LV cable 10 meters
- Ground cable 10 Meters
- Safety switch

## Calibration Box (Optional)

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

## 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.

## Generated Frequency Source (Optional)

Measurement will be possible on Generated Frequency measurement which is away from the line frequency. Measurement on different frequency eliminates the effect of varying electrostatic interference.

### Optional

- a. Calibration Standard QCTD/12A/CS   b. Generated Frequency Source QCTD/12A/GFS   c. Carrying Case QCTD/12A/CC



### Ordering Information

- Interconnecting Leads set - QCTD/12A/LS
- Foot Switch - QCTD/12A/FS
- Instruction Manual - QCTD/12A/M
- Application Notes and Testing Guide - QCTD/12A/AN
- Installation - CDQCTD/12A/ICD
- Operating System Windows CD
- Set of Fuses - QCTD/12A/FS