

# Resistivity, Tan Delta & Dielectric Constant Test Set



## AMBER ARTD-10 / ARTD-10<sup>HT</sup> FEATURES

- Complete Microprocessor control
- Compact, Portable & Accurate
- Measures : Dielectric Constant  
Tan Delta  
Resistivity
- 320 x 240 dot Back-Lit Graphical LCD display
- Parameter entry through keyboard
- Alarm Indication for Error messages
- RS- 232 Printer Interface
- Parallel Port Printer Interface\*
- Automatic Save & Print\*
- Automatic updating of Date & Time\*
- USB (Pen drive) interface\*

## SPECIFICATIONS

### RANGES

Dielectric Constant	: 1 to 13
Tan Delta	: $10^{-5}$ to 10
Resistivity	: $10^9$ to $10^{17}$ ohm cm

### ACCURACY

Dielectric constant	: $\pm 0.2\%$ of standard reading $\pm 0.001$
Tan Delta	: $\pm 1\%$ of standard reading $\pm 0.3\%$ FS
Resistivity	: $\pm 3\%$ of standard reading $\pm 0.2\%$ FS linear

### RESOLUTION

Dielectric Constant	: 0.001
Tan Delta	: 0.1%
Resistivity	: 0.01

**CELL CONSTANT** : 3 digit adjustment for Tan Delta zero and Capacitance (cm) any cell or Test fixture between 50-70pF can be used.

**TEST VOLTAGE** : Internally generated  
Dielectric Constant : 0-3000V AC, in two ranges (0-1000V & 0-3000V)  
& Tan Delta  
Resistivity : 500V DC – Fixed

**POWER SUPPLY** : 230V AC  $\pm 10\%$ , 50Hz,  
OR 110V AC  $\pm 10\%$ ,  
60Hz, 150VA

Temperature Range :  $-10^\circ$  to  $50^\circ$  C  
Humidity : Ambient to 90% RH  
Dimensions : 19" x 15" x 6" (LxWxH)  
Weight : 15kgs (approx)

Specifications may change without notice due to continuous development.

**\*For ARTD-10<sup>HT</sup> Only.**

## OIL HEATER

An Induction Heater is used to heat the oil, at a high frequency to raise from the room temperature to  $90^\circ$  C in a time span of 15-20 minutes. A knob is provided to set the temperature and will be displayed on the Front Panel Digital Meter. LED is provided to indicate heating. For an operator safety, a micro switch is provided to cut-off the test voltage when the plexi cover of the heater is opened.

## SPECIFICATIONS

Power supply	: 230V AC $\pm 10\%$ , 50Hz OR 110V AC $\pm 10\%$ , 60Hz, 200VA
Temperature Range	: $20^\circ - 110^\circ$ C
Accuracy of Temperature	: $\pm 2^\circ$ C
Dimensions	: 7"x12"x13" (LxWxH)
Weight	: 15kgs (approx)

## RTC CALIBRATOR



This calibration box is used to cross check the instrument for the proper results. The portable Calibrator offers one Capacitance, three Tan Delta and four resistance values. The maximum operating voltage is 500V AC/DC.

## OIL CELL & SOLID CELL



This 3 Terminal Cell is designed for routine and laboratory Tan Delta tests on transformer oils and other electrical insulating Materials. The electrode of the cell is designed with a spherical bottom which offers more uniform stress on the oil as compared to electrode with tapered end.

## SPECIFICATIONS

Construction	: 3 terminal
Material	: Stainless Steel Body (SS316) with Teflon spacers
Capacitance	: 50-70pF
Electrode Spacing	: 2mm
Volume	: 45ml
Dimensions	: 90mm x 185mm (WxH)
Weight	: 2.5kgs (approx)