

ADTR-2K

AUTOMATIC DIELECTRIC CONSTANT, TAN DELTA & RESISTIVITY TRANSFORMER OIL TEST SET



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PURPOSE OF THE PRODUCT


The Automatic Dielectric Constant, Tan delta & Resistivity Test set, (Model ADTR-2K) is an instrument designed to measure three important parameters of a transformer oil.

- measurement of the tangent of the angle of dielectric losses, dielectric constant and specific volumetric electric resistance of transformer oil
- measuring cylindrical vessel, three electrode type
- complete automation of measurement according to DSTU 6581-75, IEC-60247-2004, ASTM D924-03, AS-1767.1-1999, BS-148-1998, JISC2101-1999, ASTM-D1169-02, IEC 61620

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TECHNICAL DATA

DIELECTRIC CONSTANT & TAN DELTA

Test voltage : 200 -2400 Volts in 1volt steps at line frequency

Accuracy : $\pm 1\%$ of output

Capacitance : 0-200... 1600pF

Accuracy : $\pm 0.1\%$ of reading $\pm 0.1\text{pF}$

Best Resolution : 0.01pF

Dielectric constant : 1 to 20 when using a typical oil test cell

Accuracy : (C= \sim 70pF) $\pm 0.1\%$

Resolution : 0.001

Dissipation Factor (DF) : 0-1.000

Accuracy : $\pm 1\%$ of reading +0.00002

Best Resolution : 0.00001

Dielectric loss : 0-10.00 Watts

Accuracy : $\pm 1\%$ of reading $\pm (10 - 5)$

Best Resolution : 0.001 milli Watts (10 - 5 Watts)

RESISTANCE-RESISTIVITY

Test voltage 100-1000 Volts DC in 1 volt

Accuracy step $\pm 1\%$ of setting

Resistance Range 10^6 to 10^{12} Ohm

Resolution 3 digits

Accuracy $\pm 2\%$ of reading at (low end), increasing to $\pm 10\%$ at high end

Resistivity 10^9 to 10^{15} ohm-cm with a typical test cell of 1000cm

Resolution 3 digits

Accuracy $\pm 2\%$ of reading at (low end), increasing to $\pm 10\%$ at high end

MEASUREMENTS

Manual Measurements - Separate and continuous measurements of C & DF or Resistivity can be made at a selected voltage

Automatic Measurements - The test set will conduct one set of C&DF, Resistivity measurements automatically and display results

Display - 240 by 128 dot LCD panel with back lighting

Keyboard - 20-Key keyboard providing numeric and soft function entries.

Heater from 20 to 110 OC

Accuracy of temperature setting - ± 2 OC

Physical:

Size 450 x 200 x 450mm

Weight (approx.) Approx. 10.5 kgs

Operating Temperature to +50°C

Humidity 0 to 90%, non-condensing



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