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## Test & Measurement

- sales
- rentals
- calibration
- repair
- disposal

## Complimentary Reference Material

This PDF has been made available as a complimentary service for you to assist in evaluating this model for your testing requirements.

TMG offers a wide range of test equipment solutions, from renting short to long term, buying refurbished and purchasing new. Financing options, such as Financial Rental, and Leasing are also available on application.

TMG will assist if you are unsure whether this model will suit your requirements.

Call TMG if you need to organise repair and/or calibrate your unit.

If you click on the "Click-to-Call" logo below, you can call us for FREE!

TMG Corporate Website

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# Insulating Oil Tester

- Confirms to IS 6792, IEC 156
- Tests insulating oils to IS, IEC, ASTM, etc.
- Test voltage to 60, 75, 80, or 100kV
- One piece construction with safety interlocked transparent hood covering test cell
- Test voltage can be held at any desired level upto maximum
- kV meter continues to indicate breakdown voltage even after breakdown
- Light weight, portable, rugged and reliable





Insulating Oil Testers are designed for the easy and accurate determination of the die-electric strength of insulating oils used in transformers, switchgears, bushings, capacitors and other electrical apparatus. They are ideal for on-site field and laboratory use. Safe and easy operation has made UDEY insulating oil testers the industry standard for more than 45 years.

## HV Transformer

The HV transformer is a completely dry resin encapsulated transformer with two HV terminals with mounting saddles. The midpoint of the transformer HV winding is earthed so that the voltage of each terminal to earth is only half the test voltage.

## Safety

Maximum possible safety of the operator as well as the equipment is ensured by a safety conscious design. The output controller is interlocked at its minimum position so that HV can be switched ON only when the voltage controller is at zero and the hood is shut. The output controller must be brought to zero after every test or interruption. The hood leading to HV terminals has a safety switch fitted so that opening of the hood shuts the HV OFF.

## Cabinet

Portable, powder coated, sheet steel with lifting handles.

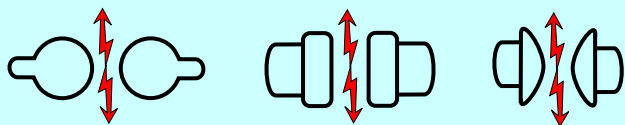
## Test Cell model TC-2

The test cell with cover is made of Methyl Methacrylate (Acrylic) having effective oil volume between 300 to 500ml with adjustable and removable 36mm mushroom head electrodes to IS 6792 & IEC 156 along with electrode gap distance GO & NOGO gauges, made of alloy steel, precision ground and hardened.

### Optional

Test Cell with suitable electrode spacing gauges:

- 1.Type TC-1: Same as TC-2 but with 12.5 to 13mm spherical electrodes.
- 2.Type TC-3: Same as TC-2 but with 1" dia flat disc electrodes to ASTM D 877.



## Standard Accessories

1. Mains cord, 2 meter long.
2. Test cell TC-2 with electrodes.
3. GO & NOGO gauges.
4. Operating Manual.

## Operation

All the controls and indicators are located on a top panel with clear and easy to understand legends. A kV meter indicates the value of the test voltage and following breakdown of the test sample, continues to indicate the breakdown voltage after the circuit breaker has tripped and removed the test voltage.

Motor may be stopped and re-started as required so that it is possible to hold any test voltage desired (upto maximum) constant for a period of time. The circuit breaker ignores transient spark-overs in the oil sample.

## Circuitry

The mains is applied to a continuously variable toroidal auto-transformer through a switch and fuse. The output of this variable auto-transformer is fed to the primary of the HV transformer. The secondary of the HV transformer has its midpoint connected to earth through a current transformer. The secondary of the current transformer is connected to a sensitive relay. When the leakage current in the circuit exceeds a pre-set value, the relay operates, thereby tripping the supply to the primary of the HV transformer.

## Indicator Lamps

3 in all as under:

Green: indicates MAINS ON

Yellow: indicates HV OFF

Red: indicates HV ON

## Specifications

Input: 240V  $\pm$  10%, AC, 1 phase, 50/60Hz

Display: Analog models: 96mm square

Digital models: 3 digit 12mm LED

$\pm$  4% of full scale deflection/range

Accuracy:

Shut down sensitivity

in HV circuit:

20mA max.

Rate of rise of voltage: Motorized sets only: 2kV/second

approx. ( $\pm$  20% max.)

Model	Display kV	Output kV	Voltage Rise	Dimensions LBH cms.	Weight Kgs Apx.
US/5	Analog	50	Manual	44 x 39 x 37	40
US/6	Analog	60	Manual	44 x 39 x 37	40
US/7	Analog	75	Manual	50 x 55 x 48	54
US/10	Analog	100	Manual	50 x 55 x 48	59
A/6	Analog	60	Motorized	44 x 39 x 37	43
A/7	Analog	75	Motorized	50 x 55 x 48	56
A/10	Analog	100	Motorized	50 x 55 x 48	60
AD/6	Digital	60	Motorized	44 x 39 x 37	43
AD/7	Digital	75	Motorized	50 x 55 x 48	56
AD/10	Digital	100	Motorized	50 x 55 x 48	60

Specifications subject to change due to constant upgradation