## **DST Oil Dielectric Tester**



## **BDV Tester for Measurement of Dielectric Breakdown Voltage Strength of Insulating Oils**

In all power and distribution transformers, switchgears, load changers, cables and circuit breakers etc., transformer oil or other insulating oils are very important ingredient and used insulation liquid should have a very high dielectric strength. To test the dielectric strength of insulation liquid, we developed Insulating Oil Dielectric Breakdown Voltage Tester(DST), which is completely self-contained, compact and portable set. The set has been specially designed for testing the dielectric breakdown voltage strength of insulating liquids, a very high voltage is passed through it. The failure of the dielectric strength is shown by a spark across two electrodes. The apparatus to carry out this test is manufactured by us in various voltage ranges and models, as per IEC-156 and ASTM standard.

The DST Oil Tester set comprises of control panel, transformer and oil test cell with electrodes and has an acrylic covered housing for oil test cell. This set use microprocessors, automatically booster, store, stand, stirring, calculation and printing operations, can be performed within the 0 ~ 80/100 KV oil circulating pressure test. The operator can make simple set, the instrument will automatically set the complete 1 cup of oil pressure test. 1 ~ 6 times of breakdown voltage value and the number of cycle is automatically stored, and after completion of test, thermal printer can print out all average value and breakdown voltage.

## **Features:**

1. As per specification of International standard of IEC-156 and ASTM D-1816 (or customized)

2. Automatic self-test with HV output voltage testing variation of 0-80KV or 0-100KV.

3. Built-in measurement of the temperature of the insulating liquid.

4. LCD display to rest test results and built-in printer to print out of test results automatically.





5. Capability of storing100 experimental results, displaying the current temperature. Even the power off, the testing date can be stored.

6. At a constant speed controlled by single chip microcomputer for booster, voltage frequency accurately, make the whole process is easy to control.

7. With over-voltage, over-current, limit protection to ensure the safety of the operator.





8. Easy to operate, small size, light weight which operated in the open air very conveniently and convenient for maintenance

## Technology and parameter data:

- 1. Power supply: AC220V  $\pm 10\%$ , 50 HZ/60 Hz
- 2. Voltage output: 0-80KV / 0-100KV
- 3. Accuracy: ±1%
- 4. Capacity: 1.6KVA, 2.0KVA

5. Rate of voltage rise: 0.5 kv/s, 1 kv/s, 2 kv/s, 3 kv/s and 5 kv/s for selected test standard.

- 6. Breakdown sensitivity: <2KV
- 7. Wave form distortion:  $\leq$ 3%
- 8. Time of breakdown: ≤10ms

9. Operational environment: Temperature:  $0\,^\circ\!\mathrm{C}$  -50 $^\circ\!\mathrm{C}$  , Humidity: the most relative humidity 85%

10. Storage environment: Temperature: -20  $^\circ\!\mathrm{C}$  -60  $^\circ\!\mathrm{C}$  , Humidity: the most relative humidity 75%.

11. Test cell: Glass, volume 200 or 400 ml, with protective cover and stirrer.

12. Electrodes: Stainless steel spherical 36 mm diameter/hemispherical 25 mm radius, 2.5/1/2 mm gap as per IEC-156 and ASTM D-1816 standard,

13. Initial stand time of oil sample: 180 secondsIntermediate stand time of oil sample: 60 secondsString time of oil sample: 60 secondsNumber of consecutive test: 6

14. Net Weight: 30 kg. Dimension: 480\*400\*450 mm



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