RDJS-610D Oil Tan Delta Test Set

RDJS-610D insulating oil tan delta test set is used to measure the dielectric loss factor and DC resistivity of liquid insulating media such as insulating oil and integrated structure. The main components' internal integration includes a dielectric loss oil cup, temperature controller, temperature sensor, dielectric loss test bridge, AC test power supply, standard capacitor, high resistance meter, DC high voltage source, etc. The instrument adopts all digital technology, all intelligent automatic measurement, is equipped with a color screen LCD, menu operation, and test results can be automatically stored and printed out. The operator can skillfully use it without professional training.

Product Features

1. The oil tan delta test set adopts medium-frequency induction heating and a PID temperature control algorithm. The heating method has the advantages of non-contact between the oil cup and the heating body, uniform heating, fast speed, and convenient control, so the temperature is strictly controlled within the preset temperature error range.
2. The internal standard capacitor is an SF6 gas-filled three-electrode capacitor. The capacitor's dielectric loss and capacitance are not affected by ambient temperature and humidity, so the instrument's accuracy can still be guaranteed after prolonged use.
3. Perfect protection function. When there is an overvoltage, overcurrent, or high-voltage short circuit, the instrument can quickly cut off the high voltage and send a warning message. A warning message is also issued when the temperature sensor fails or is not connected.
4. The medium-frequency induction heating furnace has a temperature-limiting relay.

When the temperature exceeds 120 ℃, the relay releases, and the heating stops.

5. The test parameters are easy to set. The temperature setting range is 40 ~ 120 ℃, the AC voltage setting range is 200 ~ 2200V, and the DC voltage setting range is 0 ~ 500V.
6. The instrument adopts a large-screen TFT pure-color LCD touch display with a clear display. The instrument can automatically perform testing with simple settings and store and print test results.
7. With a real-time clock, test date and time can be saved, displayed, and printed with test results.
8. Calibration function of empty electrode cup. Measure the empty electrode cup's capacitance and dielectric loss factor to judge its cleaning and assembly condition. The calibration data is automatically saved to facilitate the accurate calculation of relative permittivity and DC resistivity.
9. The instrument RAM9 platform is the core and has high precision and speed.

🕮 Product specifications and technical parameters

1. Power supply voltage: AC 220 V ± 10%

2. Power frequency: 50 Hz / 60 Hz ± 1%

3. Measurement range:

Capacitance is 5pF ~ 200pF

The relative permittivity is 1.000 ~ 30.000

The dielectric loss factor is 0.00001 ~ 100

DC resistivity 2.5 M Ω m ~ 20 T Ω M

4. Measurement accuracy:

Relative permittivity ±(1 ~ 10)% reading

Dielectric loss factor ± (5% reading + 0.0002)

DC resistivity ± 10% reading

5. Resolution: Capacitance 0.01pF

Relative permittivity 0.001

Dielectric loss factor 0.00001

6. Temperature range: 40 ~ 120 ℃

7. Temperature measurement error: ± 0.5 ℃

8. AC test voltage: 200-2200 V, continuously adjustable, frequency 50 Hz

9. DC test voltage: 0 ~ 500V, continuously adjustable

10. Power consumption: 500W

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