Huazheng®

HZ-2400H
Dielectric loss Tester

Huazheng Electric Manufacturing (Baoding) Co., Ltd

Dear user:

Thank you for choosing HZ-2400H Dielectric loss Tester.

We hope that this instrument can make your work easier and more enjoyable, so that you can get the feeling of office automation in the test and analysis work.

Before using the instrument, please read this manual, and operate and maintain the instrument according to the manual to prolong its service life. "Just a light press, the test will be completed automatically" is the operating characteristics of this instrument.

If you are satisfied with this instrument, please tell your colleagues; if you are not satisfied with this instrument, please call (0312) 6775656 to tell you to serve you at all times-Baoding Huazheng Electric Manufacturing Co., Ltd., our company will definitely make you satisfied !

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I. Instrument overview

Dielectric loss measurement is a very basic method in the insulation test, which can effectively find the overall damp deterioration and deterioration of the insulation of electrical equipment, as well as local defects. It is widely used in electrical manufacturing, electrical equipment installation, handover and preventive testing. The measurement of dielectric loss of transformers, transformers, reactors, capacitors, bushings, lightning arresters, etc. is the most basic method to measure their insulation performance. The dielectric loss tester breaks through the traditional bridge measurement method, adopts variable frequency power supply technology, uses single-chip microcomputer and modern electronic technology to perform automatic frequency conversion, analog/digital conversion and data calculation; achieves strong anti-interference ability, fast test speed, and high precision , Fully automatic digitization, simple operation; power supply adopts high-power switching power supply, output 45Hz and 55Hz pure sine wave, automatically pressurize, can provide up to 10kV voltage; automatically filter 50Hz interference, suitable for substations and other large electromagnetic interference testing on the spot. It is widely used in the dielectric loss measurement of transformers, transformers, bushings, capacitors, arresters and other equipment in the power industry.

II. Performance characteristics

1. The instrument uses Fourier transform digital filtering technology to measure capacitance, dielectric loss and other parameters. The test result has high accuracy, which is convenient for automatic measurement.

2. The instrument uses frequency conversion technology to eliminate on-site 50Hz power frequency interference, and reliable data can be measured even in an environment with strong electromagnetic interference.

3. Using a full-touch large LCD display, easy to operate. Full touch LCD screen, super large graphic operation interface, each process is very clear and clear, the operator can use it without additional professional training, and the whole process can be measured with a light touch.

4. Store data: The internal is equipped with a calendar chip and a large-capacity memory, which can save the test results at any time, view the historical records at any time, and print out. The current time and storage time can be displayed and printed at any time.

5. Scientific and advanced data management: The instrument data can be exported through U disk, and the data can be viewed and managed on any PC through special software.

6. The instrument is easy to operate, and the measurement process is controlled by the microprocessor. As long as the appropriate measurement method is selected, the data measurement can be automatically completed under the control of the microprocessor.

7. Integrated model with standard capacitor and high-voltage power supply, which is convenient for on-site testing and reduces on-site wiring.

8. The instrument has high measurement accuracy and can meet the requirements of oil dielectric loss measurement. Therefore, it only needs to be equipped with a standard oil cup and a special test line to achieve oil dielectric loss measurement.

9. With reverse wiring low-voltage shielding function, when the 220kV CVT bus is grounded, the dielectric loss of 10kV reverse wiring can be measured for C11 without disconnecting the wiring.

10. Able to do AC withstand voltage test. It is convenient for PT, CT to do AC withstand voltage twice, and for 400V low voltage system to do withstand voltage test.

11. It can identify the frequency of the external high-voltage power supply from 40Hz to 70Hz, and allows the use of industrial frequency power supply or series resonant power supply for large-capacity high-voltage dielectric loss test.

12. With CVT test function, it can realize the self-excitation method test of CVT, and can set 4 protection limits of high voltage/current and low voltage/current to ensure the safety of people and equipment.

13. When testing CVT, it can not only automatically test the capacitance value and dielectric loss value of C1 and C2, but also test the total capacitance and dielectric loss value of CVT equipment

14. With CVT ratio measurement function. It can measure CVT ratio, polarity and phase error.

15. With four-channel simultaneous measurement function, it is convenient to test the three-phase and neutral point bushings of the transformer.

16. The built-in thermal printer can print out, with a calendar clock, it is convenient for users to write test reports, and it has a U disk output.

17. With computer interface. A computer can control 32 instruments, which can be integrated into a comprehensive high-voltage test vehicle to realize measurement, data processing and report output.

18. Grounding protection function. When the instrument is not grounded or the grounding is poor, the instrument will not enter the normal program and will not output high voltage. Over-current protection function, the instrument will not be damaged when the sample is short-circuited or broken down.

19. Electric shock protection function. When the operator of the instrument accidentally gets an electric shock, the instrument will immediately cut off the high voltage to ensure the safety of the test personnel.

20. With GPS global positioning system, can provide the test location of the instrument (optional).

III.Technical indicators

Accuracy: Cx: ±(reading×1%+1pF)

tgδ:±(reading×1%+0.00040)

Anti-interference index: frequency conversion anti-interference, the above accuracy can still be achieved under 200% interference

Capacity range:

Internal high voltage: 3pF～60000pF/10kV 60pF～1μF/0.5kV

External high voltage: 3pF～1.5μF/10kV 60pF～30μF/0.5kV

Resolution: up to 0.001pF, 4 significant digits

Range of tgδ: Unlimited, resolution 0.001%, three kinds of test samples of capacitance, inductance and resistance are automatically identified.

Test current range: 10μA～5A

Internal high voltage: set voltage range: 0.5～10kV (12kV can be customized)

Maximum output current: 200mA

Buck-boost mode: voltage can be set at will. For example, 5123V.

Test frequency: 40-70Hz single frequency can be set at will. For example, 48.7Hz

50±0.1Hz to 50±10Hz automatic double frequency conversion can be set at will.

60±0.1Hz to 60±10Hz automatic double frequency conversion can be set at will.

Frequency accuracy: ±0.01Hz

High voltage applied externally: the maximum test current is 5A during the positive connection, power frequency or frequency conversion 40-70Hz

Maximum test current when reverse wiring is 10kV/5A, power frequency or frequency conversion 40-70Hz

CVT self-excited low voltage output: output voltage 3～50V, output current 3～30A

CVT ratio measurement:

Transformation ratio measurement accuracy: ±reading×1% Transformation ratio measurement range: 10～99999

Phase measurement accuracy: ±0.1° Phase measurement range: 0～359.9°

Measuring time: about 40s, related to the measuring method

Input power: 180V～270VAC, 50Hz±1%, power supply from mains or generator

Computer interface: standard RS232 interface, U disk socket (automatic U disk storage data).

Printer: Thermal micro printer

Environment temperature: -10℃～50℃

Relative humidity: <90%

Dimensions: 500mm*377mm*330mm

Instrument weight: 28kg