Dear Client,

Thank you for Purchasing our HTZZ-5A Transformer DC Winding Resistance Tester. Please read the manual in detail prior to first use, which will help you operate the equipment skillfully.

Our aim is to continually improve and perfect the company's products, so there may be slight differences between your purchase equipment and its instruction manual. You can find the changes in the appendix. Sorry for the inconvenience. If you have further questions, welcome to contact with our service department.

The input/output terminals and the test column may bring voltage, when you plug in/pull out test line or power outlet, they will cause electric spark. PLEASE CAUTION RISK OF ELECTRIC SHOCK! To avoid risk of electric shock, be sure to follow the operating instructions!

Company Address:

T4, No. 1, High-tech 2 Road, East Lake High-tech Development Zone, Wuhan, P.R.China

Sales Hotline: 86-27- 87457960

After Service Hotline**:** 86-27- 87459656

Fax: 86-27- 87803129

E-mail: whhuatian@163.com

Website: www.whhuatian.com

◆ SERIOUS COMMITMENT

All products of our company carry one year limited warranty from the date of shipment. If any such product proves defective during this warranty period we will maintain it for free. Meanwhile we implement lifetime service. Except otherwise agreed by contract.

◆ SAFETY REQUIREMENTS

Please read the following safety precautions carefully to avoid personal injury and to prevent the product or any other attached products being damaged. In order to avoid possible danger, this product can only be used within the scope of the provision.

Only qualified technician can carry out maintenance or repair work.

--**To avoid fire hazard or personal injury**:

Use Proper Power Cord

Only use the power wire supplied by the product or meet the specifications of this product.

Connect and Disconnect Correctly

When the test wire is connected to the charged terminal, please do not connect or disconnect the test wire at will.

Grounding

The product is grounded through the power cord; besides, the ground pole of the shell must be grounded. To prevent electric

shock, the grounding conductor must be connected to earth ground. Before making connections to the input or output terminals of the product, please do check that the product is properly grounded.

Pay Attention to the Ratings of All Terminals

To prevent the fire hazard or electric shock, please be care of all ratings and labels/marks of this product. Before connecting, please read the instruction manual to acquire information about the ratings.

Do Not Operate without Covers

Do not operate this product when covers or panels removed.

Use Proper Fuse

Only use the fuse with type and rating specified for the product.

Avoid Touching Bare Wire and Charged Conductor

Do not touch the bare connection points and parts of energized equipment.

Do Not Operate with Suspicious Faults

If you encounter operating faults/suspect there is damage to this product, do not continue. Please contact with our maintenance staff.

Do Not Operate in Wet/Damp Conditions.

Do Not Operate in Explosive Atmospheres.

Ensure Product Surfaces Clean and Dry

—Security Terms

Warning: indicates that death or severe personal injury may result if proper precautions are not taken

Caution: indicates that property damage may result if proper precautions are not taken.

Table of Contents

I. Overview

For a transformer, the DC resistance of its winding must be tested during handover, overhauls and tapping switch changes and is an important test item after faults. transformer DC resistance tester is a quick tester for the DC resistances of transformers, generators, motors, circuits, etc.

II. Function features

- Large output current, wide measurement range, small volume, light weight and easy operation;
- Quick test speed, high measurement accuracy, great retest performance and excellent anti-interference;
- Perfect protective circuit function and discharge alarm function ensuring less misoperation and high reliability;
- High-speed microcontroller realizing automatic stabilized current judgment, data acquisition and resistance display;
- 192*64 large-screen LCD guaranteeing clear outdoor display;
- Internal large-capacity nonvolatile memory which can save 500 groups of measurement data at most;
- Internal USB controller which supports U drive and can save 1,000 groups of measurement data at most;
- Internal high-precision real-time clock for date and time calibration.

III. Technical data

Output current	10A、5A、1A、100mA、10mA、1mA
Measurement range	10A： 500μΩ～2Ω
	5A： 1mΩ～4Ω
	1A： 10mΩ～20Ω
	100mA：1Ω～200Ω
	10mA： 10Ω～2kΩ
	1mA： 100Ω～20kΩ
Resolution	0.1μΩ
Measurement accuracy	±（0. 2%R+2D）
External dimension	345mm×295mm×175mm
Weight	5kg

IV. Operating conditions

Ambient temperature	-10℃～50℃
Ambient humidity	≤85%RH
Power supply	AC220V±10%
Supply frequency	50±1Hz

V. Panel

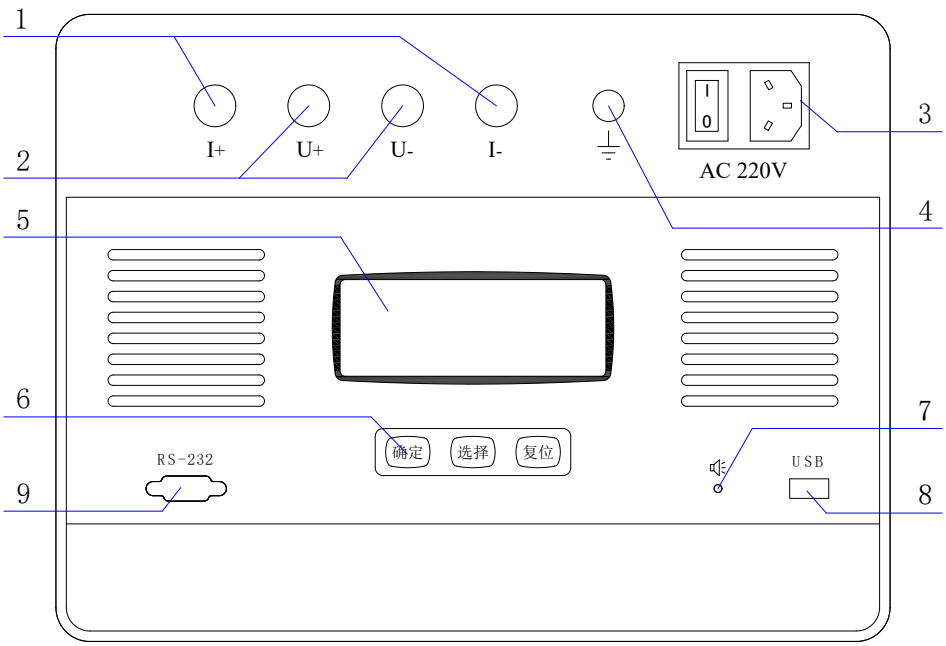

Fig.5.1

确定	OK
选择	SEL
复位	RST
变压器直流电阻测试仪	Transformer DC Resistance Tester

1. I+, I-: Current output terminals
2. U+, U-: Voltage input terminals
3. Power switch: Power switch and fuse of the product
4. Ground pole: For safe grounding of the product
5. LCD: For displaying various operation data and measurement data
6. Keyboard: For the operation and parameter setup of the functions
7. Buzzer: For discharge alarm indication
8. USB interface: Special interface for a USB drive
9. RS-232: Software upgrade interface and/or PC interface

VI. Operating instructions

6.1 Typical wiring for the DC resistance test of the transformer winding (Fig.6.1)

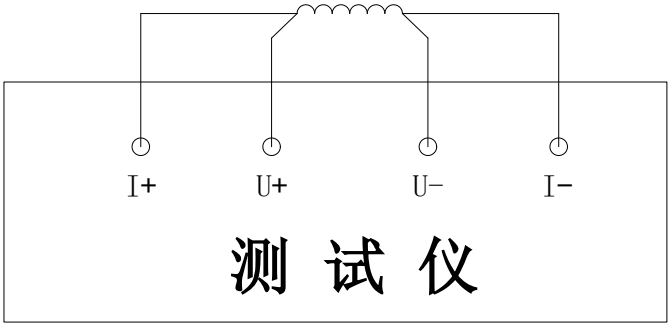

Fig.6.1

测试仪	Tester

6.2 DC resistance test

After connecting the product with the testing lines as required, turn on the power switch. The LCD will display in the way in Fig.6.2.

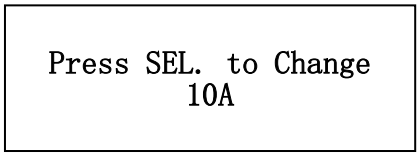

Fig.6.2

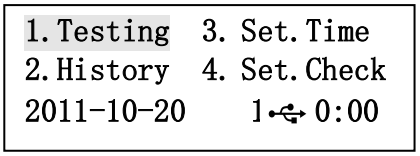

Fig.6.3

In the interface in Fig.6.2, RST. is for backing to the main menu (Fig.6.3); SEL. is for selecting the test current (cyclic display: 10A →5A→1A→100mA→10mA→1mA→10A…); OK is for entering the test state (Fig.6.4).

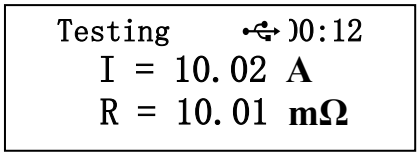

Fig.6.4

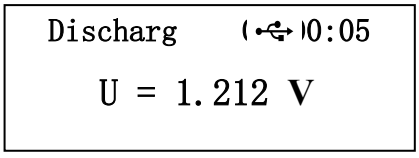

Fig.6.5

In the interface of Fig. 6.4, exit the test status by pressing RST. After that, the product will discharge automatically and, upon the end of discharge, return to the current selection interface (Fig.6.5). In the test status, press OK to enter the storage medium selection interface (Fig.6.6).

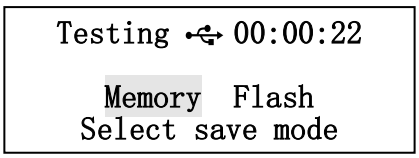

Fig.6.6

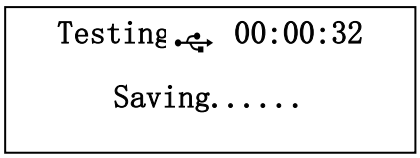

Fig.6.7

In the interface of Fig.6.6, press Select, select Local or USB Drive and press OK to execute the corresponding storage operation. See Fig.6.7 for display on the interface.

6.3 Historical Records inquiry

Select “2. History” under the main menu and press OK to enter the interface of Historical Records inquiry. The LCD will then display in the way in Fig.6.8.

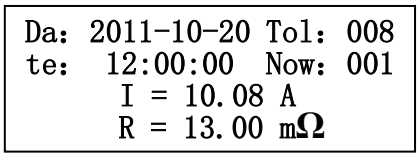

Fig.6.8

In the interface of Fig.6.8, press SEL. to select the next historical record, or RST. to exit the historical records and back to the main menu.

Press OK to import the historical data into a USB drive for storage, or SEL. and OK to delete all the historical records directly.

6.4 Date and time setup

Select “3. Set.Time” under the main menu and press OK to enter the interface of date and time setup. The LCD will then display in the way in Fig.6.9.

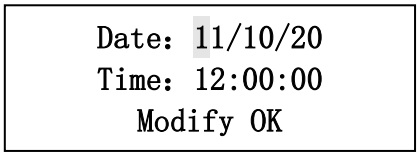

Fig.6.9

In the interface of “Set date and time”, press SEL. to select the corresponding setting position and press OK to change its data. After the data and time are changed into the wanted values, select Modify OK to save

the settings and return to the main menu.

VII. Precautions

1. Before use, read this User’s Manual carefully and inspect and make sure the lines are correctly connected and securely grounded.

2. When testing a transformer with an unloaded regulating winding, do not switch the no-load tap switch during the test or before complete discharge.

3. Do not remove the testing lines during the test but after the test has been done and the product has exited from the test status.

4. For any unsolvable problems, contact us in time.