Huazheng®

HZ-5300
Contact Resistance Tester

User Manual

Huazheng Electric Manufacturing (Baoding) Co., Ltd

Dear user:

Thank you for choosing HZ-5300 Contact Resistance 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.Overview

The HZ-5300 Contact Resistance Tester is a high-precision, digital switch detection instrument carefully developed by the company in accordance with the IEC standard and the relevant regulations of the latest electric power implementation standard DL/T845.4-2004 of the People's Republic of China, using its own technical advantages. The instrument uses high-frequency high-power constant-current switching power supply technology, which can measure micro-ohm contact resistance. It is widely used in the measurement of contact resistance, loop resistance of various switches and electrical appliances, and contact resistance of cables, wires, and welds. The instrument has accurate measurement data and stable performance. It can meet the requirements of on-site high-voltage switch maintenance and high-voltage switch factory loop resistance testing in electric power and power supply departments Claim. The output current and measuring resistance are simultaneously output on the 65K true color LCD, and the measurement results can be voltage output or stored in a USB flash drive. The power-off storage can satisfy data query at any time.

II.Main technical indexes

1. The test current is large, which fully meets the requirements of the national standards for testing contact resistance.

2. High output voltage and wide measuring range.

3. The test current comes from a high-precision high-current constant-current power supply, without manual adjustment, and the test is rapid and accurate.

4. The four-terminal wiring method is adopted, which effectively eliminates the influence of the test wire resistance on the test results.

5. The 65K true color LCD with ultra-small pixels of 320X240 dot matrix,

6. The instrument comes with a perpetual calendar clock and power-down storage, which can automatically store 1000 sets of test data for reference at any time

7. The instrument is equipped with a micro printer, RS232 and USB interfaces, which can communicate with a computer and store in a U disk

8. Intelligent power management technology, the instrument always works in the minimum power state, effectively saving energy.

III.Main Technical index

Test current: 100A, 200A, 300A

Range: 0～50mΩ(100A) 0～20mΩ(200A) 0～5mΩ(300A)

Resolution: min 0.1μΩ

Accuracy: ± (0.5% ± 2 words)

Power: 1000W

Working mode: continuous measurement

Power supply: AC220V±10% 50HZ

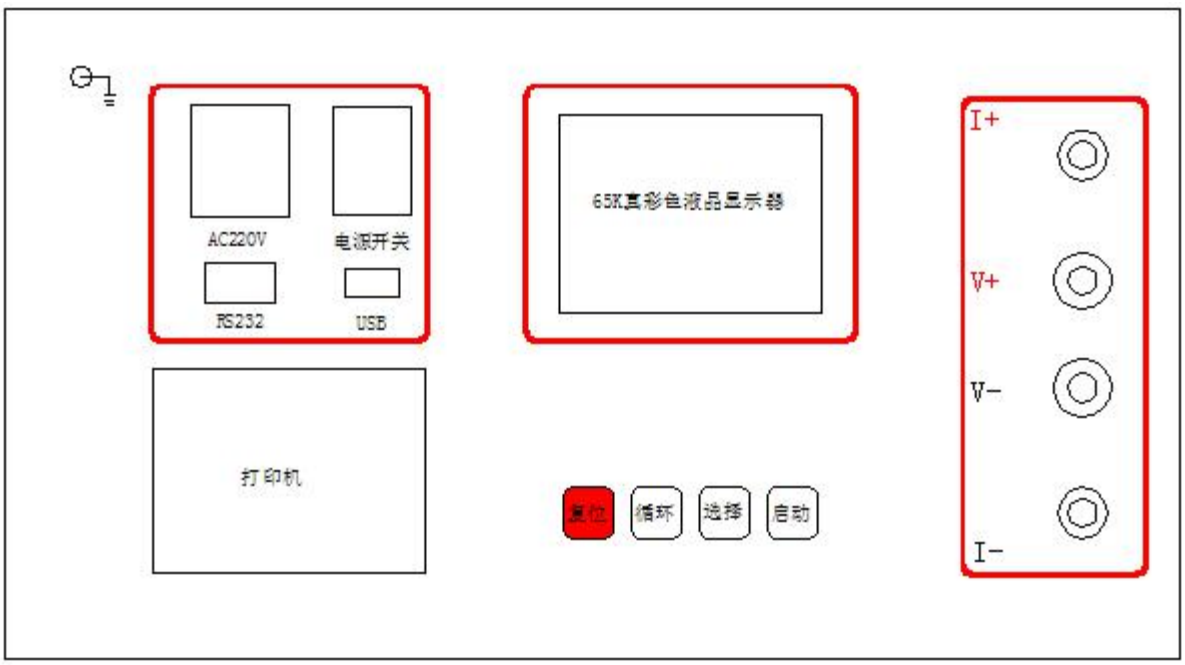
Operating temperature: 0～40℃

Relative humidity: less than or equal to 90% without condensation

Dimensions: 355*275*147

Weight: 9.05KG

Ⅳ. Instrument panel introduction



1. Power switch: Press "I" to start power supply, press "O" to turn off power

2. AC220V: The instrument power input terminal, this instrument uses AC 220V power

supply

3. I+, I-: are current output terminals, which provide constant current for the sample through a dedicated test wire

4. V+, V-: input terminals for the voltage signal of the test product

5. Liquid crystal: using 320X240 true color liquid crystal, fonts can be clearly observed under strong light, display operation settings, test results, contact resistance value and output current value

6. RS232: serial port output

7. Reset key: the whole machine is initialized and the instrument is in the ready state

8. Selection key: Press this key to select various settings of the instrument, and the data can be printed after measurement

9. Circulation key: main menu cycle selection key or U disk storage

10. Confirm key: Press the confirm key and the instrument will start the current for testing

11.: Ground terminal of the instrument.

12. USB: U disk interface

13. Printer: thermal printer, printing measurement results

V.Menu operation

1.The boot interface display is shown in Figure 1:

Figure 1

Press the cycle key and the cursor can move cyclically among current selection, host parameter, time selection, and data query. When the cursor is in current selection, host parameter, and data query, press the select key to enter the next menu of the selected

menu. The cursor is in current selection. Item Press the select key to select the measurement current. When the current is 100A or 200A, the cursor is in the time selection item. Press the select key to cycle selection between 10 seconds, 30 seconds, 1 minute, 5 minutes, 10 minutes, and continuous , When the current is selected as 300A, the cursor can be cycled between 10 seconds, 30 seconds, 1 minute, and press the selection key in the time selection item. Press the start key at any time to enter the measurement state.

2. Operation steps:

1) Complete the wiring of the instrument end and the end of the tested product as required

2) After powering on, press the select button to select the appropriate measurement time and measurement current, press the start button to start the current, the screen displays "charging", a few seconds later it displays "testing", and a few seconds later it displays the measured resistance Value and current value, after the measurement is completed, the display is shown in Figure 2

Figure 2

According to the interface prompts, press the select key to print the measurement results, and press the cycle key to store the measurement results in the U disk. When the reset button is pressed during the test or the test is over, the output current of the instrument becomes zero. After the measurement is over, the power should be turned off first, and then the lead wire should be removed to prepare for the next test

3) In Figure 1, press the cycle key to move the cursor to the host parameter, press the select key to enter the interface as shown in Figure 3.

Figure 3

According to the prompt, press the select key to increase the screen brightness, and press the start key to decrease the screen brightness.

4) In Figure 3, press the cycle key to move the cursor to the clock to modify, press the select key to enter the interface as shown in Figure 4

Figure 4

Press the cycle key to move the cursor between each date data, press the select key to decrease the data, and press the start key to increase the data.

5) Move the cursor to the data query menu in Figure 1, and then press the select key to enter the data query

Figure 5

In Figure 5, when the cursor is in the data query, press the select key to scroll up, and press the start key to scroll down. Move the cursor to print, press the select key according to the prompts to print the currently displayed data, move the cursor to the U disk for storage, and press the select key according to the prompts to save the current displayed data to the USB.

Ⅵ. Wiring method

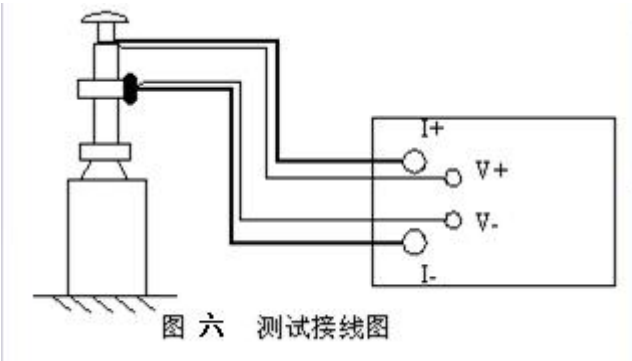


图 六　测试接线图

Note: All connecting surfaces of the test clamp should be in reliable contact with the sample. If oxidation is found on the contact surface, the oxide layer on the contact surface should be removed first.

1. Wiring method: As shown in Figure 6, connect the dedicated test wire to the corresponding I+ and I- terminals according to the color red to red, black to black, and tighten the thin power wire into V+, In the V- socket, two clamps clamp the two ends of the tested product.

2. Measurement: After completing the wiring in Figure 6, turn on the power switch and select the test time for testing. The instrument will automatically complete charging, steady current and resistance measurements.

Ⅶ.Safety measures

1. The operator should have common sense in the use of general electrical equipment or instruments.

2. After the test, press the reset button to turn off the power switch. Note: It is strictly forbidden to disassemble and assemble the test cables when powered.

3. If the instrument appears abnormal, first press the reset button to reset the instrument.

4. The maintenance of the instrument must be carried out by professionals, and it is not allowed to handle it by yourself.

5. This instrument is used to measure loop resistance, and it is not allowed to measure inductive loops.

Ⅷ.After-sales service

The instrument will be repaired and replaced free of charge for product quality problems within one year from the date of purchase, and will provide lifetime warranty and technical services. If you find that the instrument is abnormal or malfunctioning, please contact the company in time to arrange the most convenient solution for you.