GM-5kV High Voltage Digital Megohmmeter

Contents

Ⅰ、product description

GM-5kV high voltage insulation resistance tester high voltage, the power, they often object to be measured with a leak or high-frequency interference on inductive power, so for personal safety, the use of this instrument must first take a good safety ground wire!

This instrument is to solve our high-voltage substations, power plant site under strong interference testing large high-voltage transformers, electrical appliances, remote power cables or laying cables and other electrical insulation resistance properties and design and development. It can also be used for electrical insulation resistance characteristic broad areas of measurement.

Ⅱ、Performance Features

1. Using microcomputer control, menu operations, large-screen LCD dot matrix liquid crystal display, stable performance, is intelligent instruments.

2. The anti-interference ability, suitable for measuring in strong electromagnetic interference environment.

3. There are 50V, 100V, 250V, 500V, 1.0kV, 2.5kV, 5.0kV total of seven voltage output files.

The output high voltage also can be adjusted continuously.

5. Automatic measurement R15, R60, R600, automatic calculation of absorption ratio, polarization index.

6. load capacity, short-circuit current of about 5mA.

7. Measuring range up to 0 ~ 10TΩ, automatic switching range.

8. The analog bar pointer and digital display combined image shows that trends in data and accurate results.

9. The display test at any time, and 15 seconds buzzer beeps every prompt.

10. The measurement is completed automatically discharge high-pressure, high-pressure discharge time is not more than 30 seconds.

11. Automatic measurement of ambient temperature, air humidity, and the date and time of each test.

12. can save 60 groups of measurement results and the data may be lost for 20 years.

13. comes with RS232 serial interface with computer data communications.

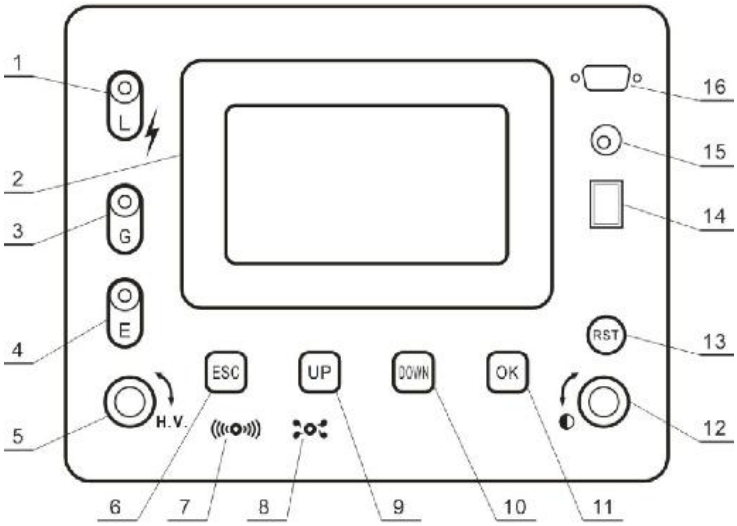
14.RS232 serial external printer (optional), you can print the measurement results, free meter reading.

15. a comprehensive perfect protection, high reliability.

Ⅲ、Technical Specifications

Rated test voltage	50V、100V、250V、500V、1.0kV、2.5kV、5.0kV A total of seven voltage output files
Measuring limit	100GΩ~10TΩ
Measurement lower limit	0.1MΩ
Output voltage error	±3%
Short circuit current	About 5mA
Accuracy class	5.0
Under half the basic error range	±(2% • Rx + 1d)
The upper half of the basic error range	±(3% • Rx + 2d)
High Pressure display error	±(3% • Ux + 1d)
Temperature measurement error	±0.5℃
Air humidity measurement error	±2%RH
Power supply	14.8V lithium battery
Battery charge time	30 days, 10 times a day and five times DAR PI test
Insulation resistance	>500MΩ (Test line and the cabinet room)
Pressure	AC10.0kV 50Hz 1min (Test line and the cabinet room)
Temperature and humidity	0℃~+40℃ < 85%RH
Storage temperature and humidity	-20℃~+50℃ < 90%RH
Dimensions	270×240×165mm
weight	4.5kg

Ⅳ、Panel presentation



1.L terminal socket	9.UP button
2.Display	10.DOWN keys
3.G terminal socket	11.OK keys
4.E terminal socket	12.Contrast knob
5.High pressure adjustment knob	13.RST Reset button
6.ESC key	14.switch
7.Temperature and humidity sensor	15.Charging jack
8.buzzer	16.RS232 serial interface

Ⅴ、Instructions

- ❖ Safety rules
- ➢ Test begins, it should take a good test line, after turning the power meter.
- ➢ The test is complete, you should turn off power to the instrument, after dismantling the test line.
- ➢ When the meter is working, the body can not touch or near the test line.
- ➢ Test the whole process, there must be full-time staff on-site supervision for safe operation.

1. Test line connection is correct, turn the power switch on the front panel, the LCD screen appears in Figure 1 of the Welcome screen turned on, it displays the current temperature, humidity and time.

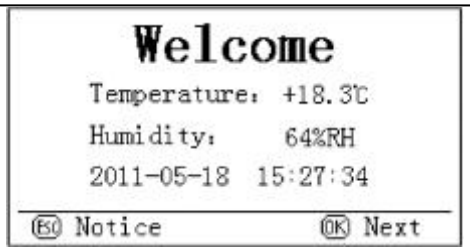


Figure 1

2. Now press the OK button, the function selection window appears as shown in Figure 2. According to key functions can be operated below the screen prompts. In the interface of FIG. 1 or 2 press the ESC key,

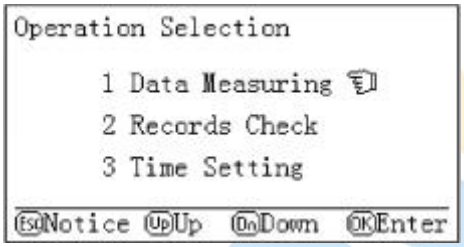


Figure 2

Letter user window will appear, the system prompts must strictly enforce safety rules. As shown in Figure 3, lasted about four seconds later, back:

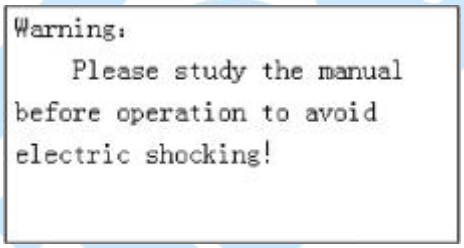


Figure 3

Figure 2 function selection window. In Figure 2 interface choose to perform parameter measurements, the system appears:

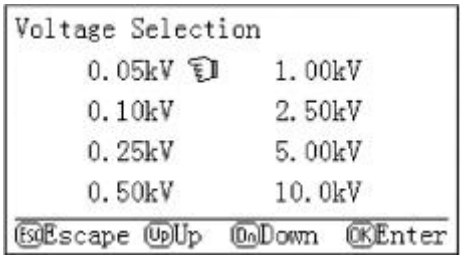


Figure 4

Test voltage selection interface, shown in Figure 4. After selecting the test voltage to confirm that the pressure measured in Figure 5 start confirmation screen appears.

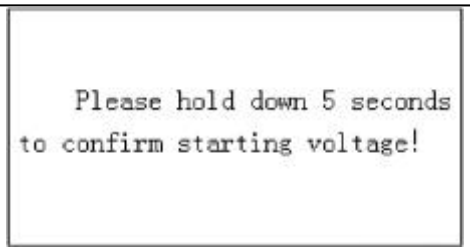


Figure 5

To prevent misuse, the system requires the user must press and hold for 5 seconds. Within five seconds if the button is released, the system returns to FIG. 4 voltage selection interface. If no key is released within 5 seconds, the display pressurized prompt window Figure 6. Warning: At this point we must pay attention to safety.

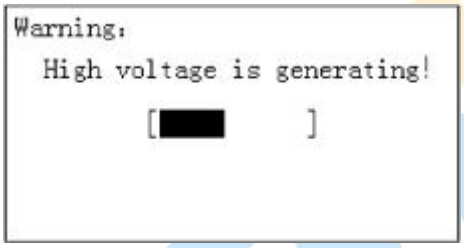


Figure 6

High pressure rise into, the emergence of the interface shown in Figure 7. The screen shows the test of time, the insulation resistance test voltage. The buzzer will sound prompt every 15 seconds.

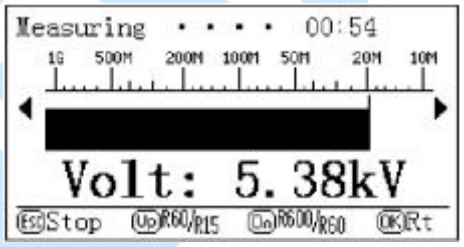


Figure 7

Automatic timing. When the time to 15 seconds, automatically displayed R15, shown in Figure 8; Time

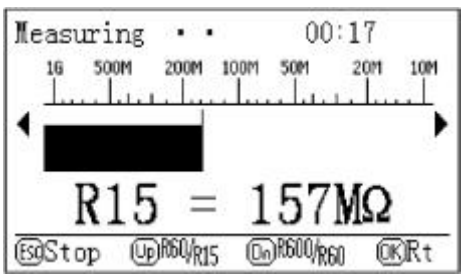


Figure 8

To 60 seconds, followed by automatic display R60, R60 / R15; time to 600 seconds, followed by automatic display R600, R600 / R60, and the buzzer will be continuous beep to alert. Press the OK button, as shown in Figure 9 Digital display of insulation resistance value at the moment at Figure 7 interface;

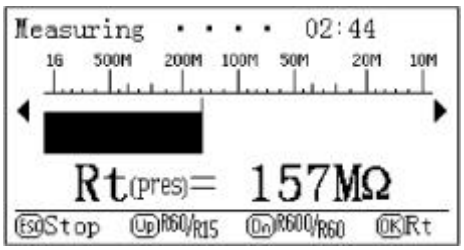


Figure 9

Press the V key to turn the display R15, R60, R60 / R15, 10; press DOWN keys are displayed in sequence R60, R600, R600 / R60.

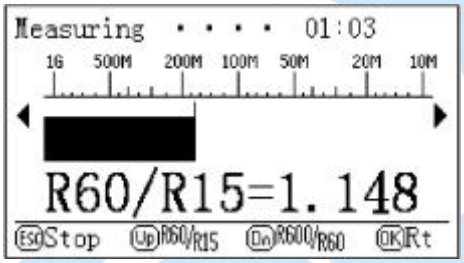


Figure 10

3. The test is complete, press the ESC key, to stop high-voltage output, the system automatically discharge.

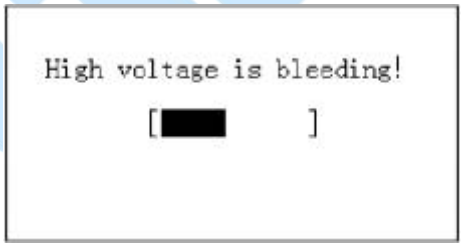


Figure 11

High-voltage, high-pressure discharge prompt interface appears, as shown in Figure 11. After the voltage discharge is completed, the results appear this measurement interface, shown in Figure 12. It can be printed, stored.

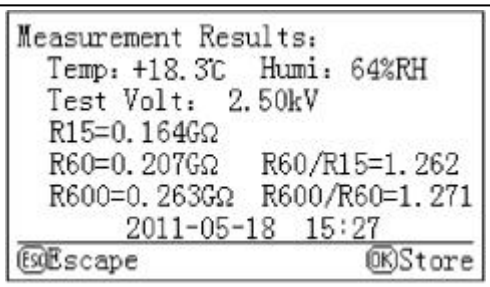


Figure 12

Now press DOWN key, that the test results are saved, the display prompt interface of FIG. 13. Each set of data according to the test of time has a sequence number, a group of current storage

Figure 13

Sequence number data is 1, the original sequence number is a sequence number of data set 1 becomes 2, the original sequence number sequence number for a group of data becomes 3, and so on. The instrument system can store up to 60 times (Group) measurement data.

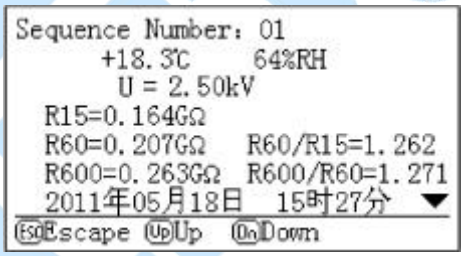


Figure 14

4. In the interface shown in Figure 2, if you select records check operation will display previously measured and stored data in each group, 14, may prompt the bottom of the screen according to key functions performed on the next page, under flip, data printing and other operations.

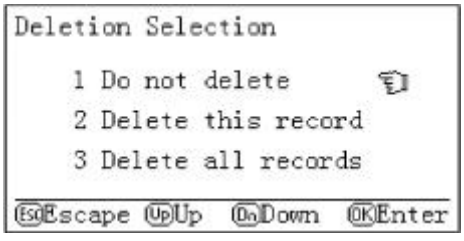


Figure 15

Tip: If you press the ESC key pressed at this time, remove the interface will appear as shown in Figure 15, of a set of data can be deleted or cleared all the data at the interface.

5. In FIG. 12, or you can print the operation of the measurement data in Figure 14 interface.

Before printing the printer should be connected, at one end of the data line connecting the instrument 9-pin RS232 serial port and the other end connected to the printer's 25-pin data connector, and turn on the printer. There are buttons and lights on the printer panel light indicates the printer is online, and vice versa represents offline. Online status of the printer in order to print. Operation button allows the printer to choose the online or offline, perform self-test or take a different paper work.

1) printer in the off state, press and hold the button, then power, printer self-test proofs, after the end go online.

2) Press the button (within 0.5 seconds duration), let go, you can switch the printer is online or offline.

3) offline, press and hold the button (the duration of one second or more) was let go, the printer will take the paper. In the same way operation button, let go, stop go paper.

6. In FIG. 12 or 14 at the interface and press OK, if the printer is online at this time, the interface appears as shown in Figure 16 to start printing. If the printer is offline or not connected, the information appears as prompt interface 17, returned after three seconds. Only after the printer is connected and switched to an online state, before the printing operation.

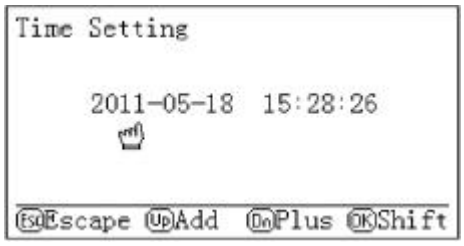


Figure 16

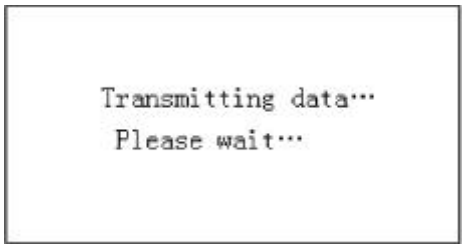


Figure 17

7. In the interface shown in Figure 2, if you choose time setting operation, the time setting screen appears, as shown in Figure 18, when the system time can be corrected.

Figure 18

8. The instrument of measurement data stored in the system can be transferred to the computer. First to be installed on a computer data receiving program, insert the CD, double-click the setup.exe file in the root directory of the CD, followed every step of the installation can use the default, just click Next or continue to installation.

9. After receiving the program data installation, you can transfer data, first instrument systems and computer connected with a 9-pin serial communication cable, turn the instrument power switch, power meter welcome screen appears, as shown in Figure 1. Then click the desktop Start menu, move the mouse to the program option under the Programs submenu select the Run this program data reception, data reception window pops up.

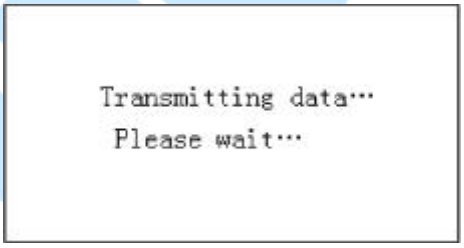


Figure 19

Click the Start button in the window at the top of the receiver, the instrument automatically switches from the Welcome screen to 19 data transfer prompt.

Instruments of all measurement data will be transferred to the data buffer in the lower part of the window shown in Figure 20. In the data transmission process. Users can received data buffer copy, paste, delete, modify, and other editing operations.

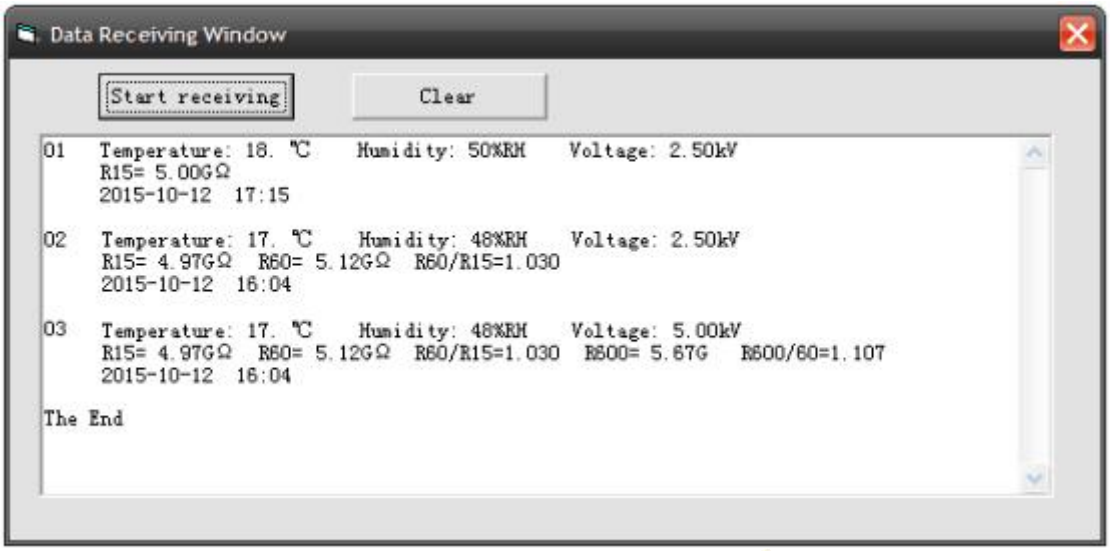


Figure 20

10. The instrument system work at any time, press the reset button RST, instrumentation system will return to power on the welcome screen when the state just on electricity.

11. Instrument working, do not cover the temperature and humidity sensor on the front panel, so as to avoid temperature, humidity measurements are not allowed. Do not cover the buzzer, in order to avoid poor pronunciation buzzer.

12. Adjust the contrast knob, the LCD display can be adjusted to the optimum.

13. After use, turn off the instrument power switch. After the shutdown, the system time continues to keep time, measurement data is stored is not lost.

Ⅵ、Packing List

Serial number	name	Quantity
1	L side test cable	1
2	G side test cable	1
3	E end of the test cable	1
4	3A power adapter	1
5	RS232 serial communication line	1
6	Printer (optional)	1
7	Data transfer software CD	1
8	user's Guide	1

9	Test Report	1
10	Certification / warranty card	1