



**Meiruike instrument**

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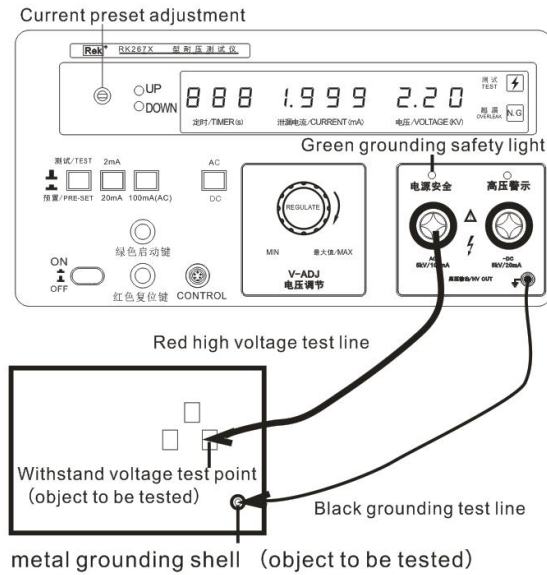
# Manual

Withstand voltage tester

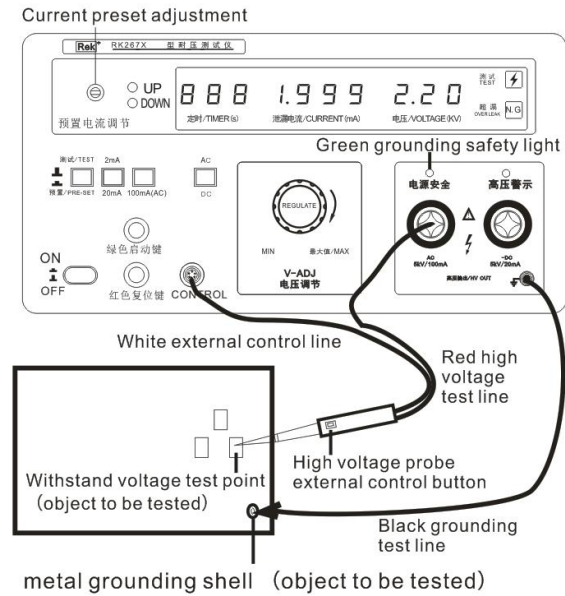
Shenzhen Meiruike Electronic Technology Co.,Ltd

# Operation Guide for Hi-pot tester

Picture 1



Picture 2



One、Two methods of testing withstand voltage

1.Using high voltage wire and ground wire like picture 1.

2.Using high voltage stick and ground wire like picture 2.(The instrument which with 10 KV and less than 10 KV equipped with high pressure stick)  
Note:The timing display must be adjusted to 0.0 when use the high voltage stick for testing,that is,the test time controlled by pressing the button of the high voltage sitck.

Two、Testing procedure:

1.Connecting the measured object when the power supply is closed,like picture 1 or 2.

2.To make sure that the voltage regulating knob is turned to the end counterclockwise and then turn on the power supply.

3.Press the current preset button to adjust to the leakage current alarm value we need,and pop-up the button after preset is completed.

4.Press the leakage current range button we need.Or the voltage file(The instrument with 10 KV).

5.Pop-up or press the AC/DC button,select the output voltage display for AC or DC(This step is only for the AC and DC type instrument)

6.Press the green starting button on the faceplate to start the test.(Press the button on the handle of the high voltage sitck to start the test)

7.Adjust the voltage regulating knob clockwise to the voltage we need.

8. Press the red reset button to stop testing. (Release the button on the handle of the high voltage stick to stop the test)

9. If test fails, (the leakage current will exceed the preset value, alarm and cut off automatically)

### Three、Test time adjustment

1. Adjust the UP button, adjust the time display for the time we need (the maximum for 999 seconds) which is controlled by the machine automatically.

2. Adjust the DOWN button, adjust the time display for "000", which is controlled artificially.

### Special note:

One、The "power supply safety" grounding indicator lamp on the faceplate of instrument, in normal situation: didn't press the power switch of the faceplate it will light when insert the 220V power supply, it doesn't bright when press the power switch.

There are three reasons for if don't press the power switch on the faceplate that it won't bright:

1. The L phase of 220V input power and the N phase (zero line) is inconsistent with the requirement of the instrument, please exchange the L phase of 220V input and the N phase.

2. The 220V input power is not grounded well, or the 220V grounding line is not connected with the grounding port well, please ensure 220V grounding line connect to the grounding port (metal shell).

3. It must ensure that the above 1 and 2 is inconsistent with the requirements, it is indispensable.

Two、If the "power supply safety" grounding indicator lamp on the faceplate of instrument doesn't bright, it also can be tested. To ensure the safety of operator, please obey to the above requirements.

## Instruction

# RK267X series Withstand voltage tester(upgraded version)

The highest output voltage of this series tester can  
run up to 5kV(10kV,20kV).

\*Any incorrect operation may cause death.

\*Please read the second chapter"the use of precautions"before using the tester.

\*The operating instruction should be placed next to the operator so that you  
can read it when you need it.

## Instructions for use:

\* Please read and understand the content described in the instructions carefully before operating tester. After reading, please put the manual near to operator for reading when needed. When the tester was carried from a workplace to another place. Please carry the instructions with the instrument to prevent loss.

\* If it is found that the page is missing or the Instructions is contaminated. Please contact the dealer of the Meiruike for purchase immediately.

\* With the improvement of the function of the instrument, upgrade of the software. The instructions will also continue to be improved, upgraded. Please note that the software of test equipment and manual version.

The instructions of RK267X withstand voltage  
tester(upgraded version)

Ver: 1.0-----2016.04.26

Ver: 1.1-----2016.06.24 (Increase RK2672BM model, Technical indicators and  
description of faceplate)

Ver: 1.2----- 2016 .09.28 (Increase RK2672CM, RK2672DM, RK2671AM, RK2671BM  
RK2671CM, RK2674A model, Technical indicators and description of faceplate)

## In order to ensure safety, please note.

\* In the testing process,the operator should not touch the location or area of the following;otherwise it will cause the occurrence of electric shock accident.

- (1) High voltage output port of test instrument;
- (2) Crocodile clip of the test line connecting with the tester;
- (3) Tested product;
- (4) Any object that is connected to the output port of the tester;

\* In order to prevent the accident of electric shock,please follow the steps below.

(1) In order to prevent the occurrence of electric shock accident,before using the tester,please wear insulated rubber gloves and then engaged in the work with the tester.

(2) Grounding connect safely and reliably:There is a grounding terminal on the rear faceplate of this series of tester,please connect this terminal to the ground.If there is no reliable grounding connection, when the power supply and casing are short circuit will have high pressure,this is very dangerous.As long as any human contact the shell,are likely to cause the electric shock,so it must connect this grounding Terminal to earth reliably.

(3) After turn on the power switch,please don't touch any objects connected with the high voltage output port;

\* The following situation is very dangerous:

(1) After pressing the "RESET" key,the high pressure indicator light is still on;

(2) The voltage value of the display don't changed any more and the high voltage indicator is still on; Meet the above situation,turn off the power switch and unplug the power plug immediately,don't use it any more;please contact with the Meiruike instrument or designated dealer immediately.

# CONTENTS

<b>1、Unpacking and Installation of Tester</b> .....	5
1.1 Receiving instrument examination.....	6
1.2 Unpacking inspection of instrument.....	6
1.3 Packing box and packing material.....	6
1.4 Safety rules for the use of instruments.....	6
1.5 Operator requirements.....	6
1.6 Check voltage of power supply.....	7
1.7 Check and replace the fuse.....	7
1.8 Grounding connection .....	8
<b>2、Operating considerations</b> .....	9
2.1 Forbidden operation.....	10
2.2 Emergency handling.....	10
2.3 Preventive measures in the testing process.....	10
<b>3、Description of faceplate</b> .....	12
3.1.1 Description of RK2670AM front faceplate.....	13
3.1.2 Description of RK2672AM front faceplate.....	14
3.1.3 Description of RK2672BM front faceplate.....	15
3.1.4 Description of RK2674A front faceplate .....	16
3.1.5 Description of RK2671AM front faceplate .....	17
3.1.6 Description of RK2672CM front faceplate .....	19
3.1.7 Description of RK2672DM front faceplate .....	20
3.1.8 Description of RK2671BM front faceplate.....	21
3.1.9 Description of RK2671CM front faceplate .....	22
3.2 Description of rear faceplate .....	24
<b>4、Summary of instrument function</b> .....	25
4.1 Summary.....	26
4.2 Introduction of instrument function.....	26
<b>5、Technical Specifications</b> .....	27
5.1 Comparison table of type function.....	28
5.2 Technical parameter.....	29
<b>6、Interface of PLC</b> .....	32
6.1 Input,output signal of PLC interface.....	33
6.2 Wiring.....	33
6.3 Connection instructions of remote control input signal and output signal.....	33
6.4 Electrical characteristics of PLC interface.....	33
<b>7、Setting of instrument parameter</b> .....	34
7.1 Presetting of test time .....	35
7.2 Presetting of AC current alarm value.....	35
7.3 Presetting of DC current alarm value(Single AC withstand voltage tester without this function).....	35
7.4 Adjustment of output voltage.....	35
<b>8、Instrument test function</b> .....	36
8.1 Preparation before testing.....	37
8.2 Testing method.....	37
<b>9、Accessories and warranty</b> .....	38
9.1 Accessories.....	38
9.2 Warranty.....	38

# 1

## Unpacking and Installation of Tester

This chapter describes the basic condition of the test and installation of the tester after user received it.

1.1 Receiving instrument  
examination

1.2 Unpacking inspection of  
instrument

1.3 Packing box and packing  
material

1.4 Safety rules for the use of  
instruments

1.5 Operator requirements

1.6 Check voltage of power  
supply

1.7 Check and replace the fuse

1.8 Grounding connection



## 1.1 Receiving instrument examination

After you receive the test instrument of the Meiruike instrument, according to the following steps to check:

1.1.1 Whether the packing box of instrument is intact; if damaged, we recommend that you do not carry out of the box, and connect with the Meiruike company or the distributor of Meiruike.

1.1.2 If the packing box of instrument is well, please check whether the type of the instrument you ordered and the type on the packing box is consistent, if no, please connect with Meiruike company or the distributor of Meiruike.

If after 1.1.1 and 1.1.2 examination, there are no problem, you can check out of the box of the instrument

## 1.2 Unpacking inspection of instrument

Please check whether the attachment and the following list in the package you ordered is consistent

1.2.1 RK2670AM, RK2672AM, RK2672BM, RK2672CM, RK2672DM, RK2671AM, RK2671BM, RK2671CM,

Attachment as follows: (Power line, high pressure stick, high voltage test clamp, ground wire)

1.2.2 Attachment of RK2674A: Power line, high voltage plug,  
grounding wire.

## 1.3 Packing box and packing material

Please keep the original packing  
material in order to use it in the  
transportation

### 1.4 Safety rules for the use of instruments

When using the instrument, please follow the safety rules:

#### 1.4.1 Don't use test equipment in flammable air.

In order to prevent the explosion or burning accident occur, do not use the tester in the presence of alcohol, thinner or other combustible materials, and do not use the instrument in the air containing flammable gases.

#### 1.4.2 Don't use the test instrument in the area of high temperature or direct sunlight.

The components used in the instrument are precision parts, which should be avoided used in the high temperature or direct sunlight place, it will accelerate the aging of the instrument, shorten the life of the tester, it is also possible to damage the tester. Using temperature range of instrument: 0°C~+40°C; Storage temperature range of instrument: -20°C~+70°C;

#### 1.4.3 Don't use tester in a high humidity environment.

Don't put the instrument on the boiler, kettle, humidifier or water in high humidity environment. Congealed droplet may cause internal short circuit and damage the tester, seriously may cause fire. If the environment humidity of storage instrument exceeds specified below, the test must be dry completely before use.

Using humidity range: 20%~80%RH

Storage humidity range: less than 90%

#### 1.4.4 Don't use the tester in a dusty environment

A dusty environment may cause a short circuit in the instrument  
to cause a fire.

#### 1.4.5 Don't put the tester on the inclined surface or use the tester in the shaking of the place.

Instruments placed on a sloping or shaking surface will make the tester fall off easily.

#### 1.4.6 Don't use the tester in the sensitive test equipment or beside the receiving equipment.

If used the tester beside these devices, these devices may be interfered by the tester; in order to reduce the interference of these devices, so that these devices should be away from the tester.

#### 1.4.7 The input power of the tester must have a separate switch control

The input power of the tester must have a separate switch control, once the emergency situation occurred should be cut off the power switch to deal with the accident immediately.

## 1.5 Operator requirements

The output voltage of the tester is sufficient to cause death, so it is necessary to be qualified personnel to  
operate the test instrument;

### 1.5.1 Personnel qualification

It must be operated by a skilled person to understand the basic concepts of voltage, current and resistance; The operator must know that high pressure is flowing from the high voltage output port of tester when in high pressure tester, pass the tested body, it flows into the tester through the connection line of the current return port; if you touch any items will get electric shock.

### 1.5.2 Safety rules

Operators must undergo special training, and understand all kinds of safety rules and safety regulations, read the instructions carefully before operating the tester.

### 1.5.3 Regulations of dress

Operators should not wear clothes with metal decorative or wear metal accessories, such as watches and so on. The withstand voltage tester don't be operated by people who with a heart disease or with the cardiac pacemaker absolutely.

### 1.6 Check voltage of power supply

supply

#### 1.6.1 Switching input supply voltage of instrument

This instrument use the 220V AC $\pm$ 10% (47~63)Hz single-phase power supply, before opening the power switch on front faceplate of instrument, please ensure that the power supply voltage and fuse is consistent with the voltage of the instrument faceplate which selected by switch.

Warning: in order to prevent failure or damage to the tester, please use the test instrument in the specified voltage range.

### 1.7 Check and replace the fuse

Warning:

- \* In order to avoid the accident of electric shock, before the replacement of the fuse, please turn off the power switch and unplug the power plug.
- \* Make sure that the fuse used is in accordance with the shape, size and characteristics specified in the specification of the tester. Otherwise it may damage the tester.

#### 1.7.1 Fuse specifications

##### (1) RK2670AM, RK2672AM

Input voltage range	Frequency range	Fuse specifications
200V~240V	47Hz~63Hz	3.15A

##### (2) RK2671AM

Input voltage range	Frequency range	Fuse specifications
200V~240V	47Hz~63Hz	4A

##### (3) RK2672BM, RK2672CM

Input voltage range	Frequency range	Fuse specifications
200V~240V	47Hz~63Hz	5A

##### (4) RK2671BM

Input voltage range	Frequency range	Fuse specifications
200V~240V	47Hz~63Hz	7A

##### (5) RK2674A

Input voltage range	Frequency range	Fuse specifications
200V~240V	47Hz~63Hz	8A

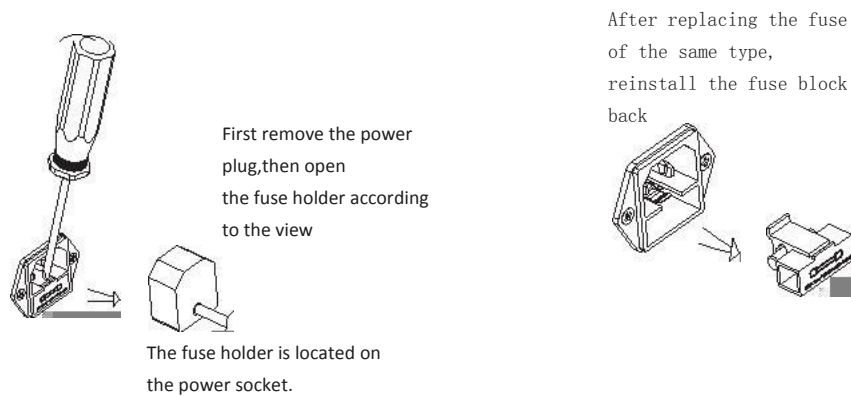
(6) RK2671CM,RK2672DM

Input voltage range	Frequency range	Fuse specifications
200V~240V	47Hz~63Hz	10A

1.7.2 Fuse replacement

When replacing the fuse, please follow these steps:

- (1) Turn off the power switch on the front faceplate and pull out the power cord;
- (2) Use a screwdriver to fix the fuse holder as shown below:



- (3) Check fuse specifications and replace the fuse to the same specifications as the fuse listed in 1.7.1;
- (4) Put the supporting frame back to the original position.

1.8 Grounding connection

Warning:\* There may be an accident of electrical breakdown grounding connection in the wrong place or not connecting.

In order to ensure the safety, we must ensure that the instrument is grounding connection reliably; There are two ways to ensure reliable grounding connection of the instrument, please select one to connect the instruments with ground the reliably.

- (1) Connect the power cord to a power socket of three-phase grounding.
- (2) If the three-phase power supply socket is not grounded, there is a protective grounding terminal on the rear faceplate of the instrument, and connected it to the safety ground.

# 2

## Operating considerations

This chapter describes the norms, measures and precautions must be followed by the operating instruments;please read the contents of this chapter in detail before using the instruments;

**Warning:**The highest output voltage of this series of testing instruments is 5kV(10kV,20kV);it is necessary to be very careful and follow the warnings given in this chapter,notes and other instructions when operate the instrument.

- 2.1 Forbidden operation
- 2.2 Emergency handling
- 2.3 Preventive measures in the testing process

## 2.1 Forbidden operation

### 2.1.1 It is forbidden to continuous and rapid switching the power supply switch

Turn off the power switch on the front panel,if you want to re open the power switch, please ensure that turn off the power switch in time a few seconds or longer.Don't switch the power switch repeat and frequently,if so,protection apparatus may not be appropriate to implement the protection function;Please do not turn off the power switch when the tester is testing the output voltage,unless it can be executed in an emergency.

### 2.1.2 It is forbidden to output the high voltage and grounding short circuit

Don't make the high voltage test line of instrument and the AC power line nearby connected to the ground or the electrical equipment nearby short circuit.If it is short circuit,the outer shell of tester may be filled with high pressure,it will be very dangerous.Ensure that the protective earthing port of the instrument is safe and reliable connection.If the grounding end is safe and reliable connected with ground,even if the high voltage output port and current return port shorted,the instruments will not be in danger and the shell would not have high pressure.The specific methods of ground connection please refer to 1.8.

### 2.1.3 Don't use external voltage

Don't put the high pressure produced by the external device on the high voltage output port of tester.Since the internal voltmeter of instrument can't be used as a separate voltmeter.External voltage is likely to damage the voltmeter.

## 2.2 Emergency handling

In case of emergency(the occurrence of an electric shock or the test object combustion),you must take the following actions: can complete (1) or (2) first,but both must be completed.

- (1) Closing the power switch of instrument;
- (2) Unplug the power cable from the power socket.

## 2.3 Preventive measures in the testing process

### 2.3.1 Prevent electric shock proof with insulated gloves

In order to prevent the electric shock accident,please bring the rubber gloves with insulation and then engage in electrical related work before using this tester.

### 2.3.2 Connecting with test line and current measurement port

The test line is connected to the current measurement port,the test line must be checked whether is connected loose or fall off any time when the tester is in use, when connect the test objects with test line,please connect the object with the test line of current measuring port.If the test line of the current measurement port was incomplete or fall off,that is very dangerous.Because the whole test object will likely be filled with high voltage.

### 2.3.3 Connecting the test line to the high voltage output port

When the test line is connected to the current measurement port,then connect the high voltage output line as the following program.

- (1) Press the "STOP" key first.
- (2) Confirm that whether the test light is light.
- (3) Insert the high voltage output line into the high voltage output port

### 2.3.4 Replace the measured object

When a test object has been tested and replace another object,please confirm:

- (1) The tester is in a "reset" state.
- (2) The high voltage indicator doesn't twinkle.
- (3) The display window of voltage shows that the number isn't beating any more.

Warning: don't touch the high pressure probe when replace the test object!

### 2.3.5 Tester is in test condition

When the tester is in the test condition,the test line,the test object,the test probe and the output port are all equipped with high pressure,please do not touch.

Note:don't touch the alligator clip of the test line with your hand,because when the host was testing,the test line has a high voltage, the insulation on the alligator clip is not high,it will cause an electric shock if you touch it.

### 2.3.6 Stop testing

Please turn the power switch placed in the location of OFF when don't use the tester any more,or you need to leave.

### 2.3.7 Confirm after testing

Don't touch the high-voltage wire by hand at any time,the test object or the high voltage output port,please confirm:

(1) the power switch is in the closed state,the monitor is not bright.

(2) when in the insulated test or DC test,it may have high voltage after testing completed,this voltage need to take a long time to discharge completely after power switch off.So please don't touch any place immediately when the discharge testing may just finished it may cause an electric shock.

# 3

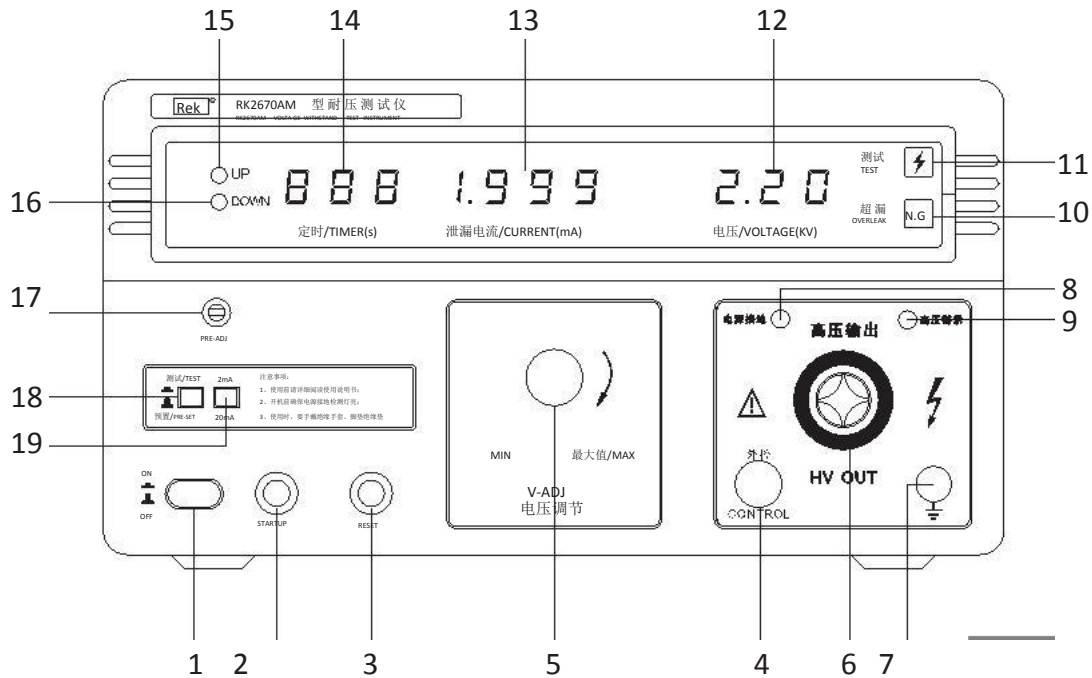
## Description of faceplate

This chapter describes components of the front faceplate and rear faceplate of the tester, please know all the functions on the instrument faceplate before operating the instrument.

- 3.1 Description of front faceplate
- 3.2 Description of rear faceplate

### 3.1 Description of front faceplate

#### 3.1.1 Description of RK2670AM front faceplate



#### 1、 Power switch

The power switch is pressed down to switch on (on)the instrument power supply,and is ejected to switch off(off)the instrument.

#### 2、 START test button

Press this button to start the test in the reset condition.

#### 3、 REST stop button

During the testing process,as the switch of the interrupt test,when the test object test fails,the superleak lamp (10)will bright, press this button to test the instrument can stop the alarm,and enter the next state.

#### 4、 Interface of remote control

This interface can be matched with the test gun and remote control test stick.

#### 5、 Output voltage regulating knob

In the test process,adjust the knob clockwise,the output voltage will increases;adjust the knob anticlockwise,the output voltage will decreases.Please confirm this knob whether is in the 0 place when in the boot.

#### 6、 High voltage output port

The high pressure output port of test instrument will have high voltage output when in the test,please don't touch the high pressure port,the high voltage output line, the high pressure probe alligator clip and the measured object.

#### 7、 Current measuring return port

This terminal is the input port of the measuring current.In the test process,we must pay attention to this terminal can't fall off, if it fall off,the test object will full of high pressure,that it may cause the occurrence of electric shock accident.

#### 8、 Power detection indicator lamp, "power supply grounding,safety" green lamp

Connecting the instrument and the power line use by city electric,the power switch of the tester is placed in the OFF state;if the connection of N,L,G in city electric is correct,the power ground safety indicator lamp will light;if the connection of N,L,G is wrong, then the green lamp doesn't light,please check the power supply.

#### 9、 High voltage output indicator lamp

This lamp is out of control of the electric circuit.If the voltage in the high voltage output port is greater than 110V,this lamp will flash.If in the reset state,the lamp will flash,then the high voltage output port may have high output,it is prohibited to touch any part of the test circuit.

#### 10、 Super leakage indicator lamp This lamp is on when the test is not qualified.

#### 11、 Test indicator lamp This lamp is on when the start button is pressed.

#### 12、 Voltage display window

#### 13、 Current display window

#### 14、 Time display window

The range of time is 0.0s~999s.When the time is less than 100s,the time resolution is 0.1s;when the time is greater than or equal to 100s,the time resolution is 1s.If the time is set to 0.0s,then the test time to add count;when the time is not set to 0,the time to reduce count.

#### 15、 UP button When setting the time, press this key, the time setting value will increases;



16、DOWN button When setting the time, press this key, the time setting value will decreases;

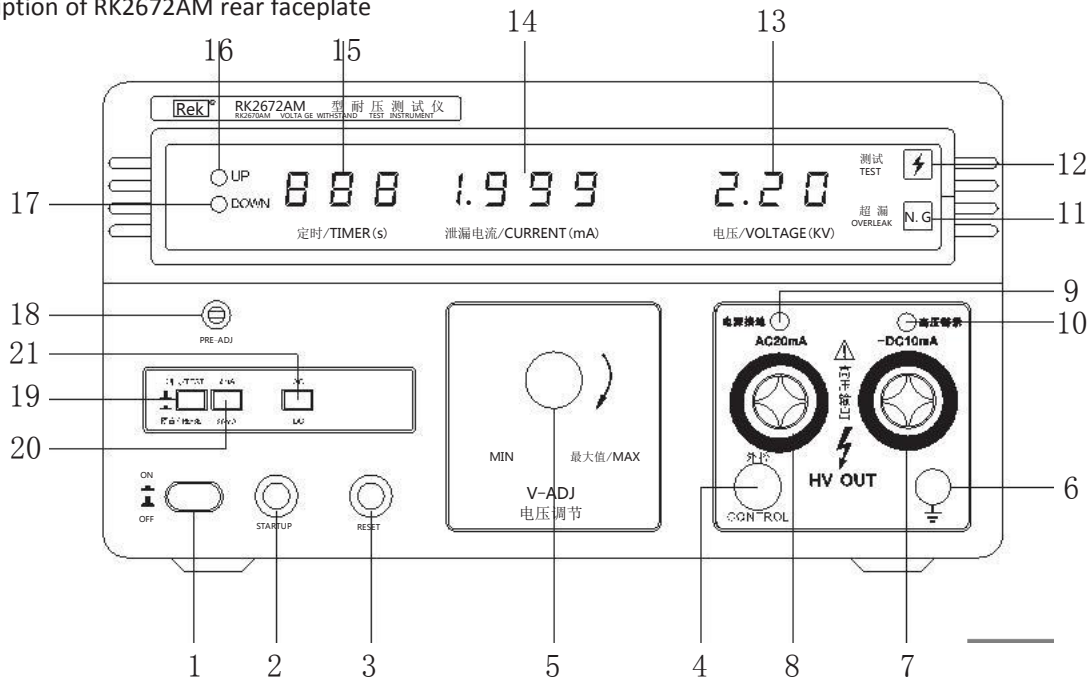
17、 Current preset adjusting potentiometer

When the "test/preset"(18)button is pressed for the current preset state,the current display window shows the preset current value,adjust clockwise the preset current will increases;adjust anticlockwise the preset current will decreases.

18、 "test/preset" button This button is pressed for the preset current state, and pop-up for the test status.

19、 2mA/20mA switch button This button is pressed for the 20mA file,pop-up for the 2mA file.

### 3.1.2 Description of RK2672AM rear faceplate



1、 Power switch

The power switch is pressed down to switch on (on)the instrument power supply,and is ejected to switch off(off)the instrument.

2、 START test button

Press this button to start the test in the reset condition.

3、 REST stop button

During the testing process,as the switch of the interrupt test,when the test object test fails,the superleak lamp (11)will bright, press this button to test the instrument can stop the alarm,and enter the next state.

4、 Interface of remote control

This interface can be matched with the test gun and remote control test stick.

5、 Output voltage regulating knob

In the test process,adjust the knob clockwise,the output voltage will increases;adjust the knob anticlockwise,the output voltage will decreases.Please confirm this knob whether is in the 0 place when in the boot.

6、 Current measuring return port

This terminal is the input port of the measuring current.In the test process,we must pay attention to this terminal can't fall off;if it fall off,the test object will full of high pressure,that it may cause the occurrence of electric shock accident.

7、 DC high voltage output port

The DC high pressure output port of test instrument will have high voltage output when in the test,please don't touch the high pressure port,the high voltage output line,the high pressure probe alligator clip and the measured object.After the test is finished, please confirm that the whole circuit is discharged completely then can replace the test object.

8、 AC high voltage output port

The AC high pressure output port of test instrument will have high voltage output when in the test,please don't touch the high pressure port,the high voltage output line, the high pressure probe alligator clip and the measured object.

9、 Power detection indicator lamp, "power supply grounding,safety"lamp

Connecting the instrument and the power line use by city electric,the power switch of the tester is placed in the OFF state;if the connection of N,L,G in city electric is correct,the power ground safety indicator lamp will light;if the connection of N,L,G is wrong, then the green lamp doesn't light,please check the power supply.

10、 High voltage output indicator lamp

This lamp is out of control of the electric circuit.If the voltage in the high voltage output port is greater than 110V,this lamp will flash.If in the reset state,the lamp will flash,then the high voltage output port may have high output,it is prohibited to touch any part of the test circuit.

11、 Super leakage indicator lamp This lamp is on when the test is not qualified.

12、 Test indicator lamp This lamp is on when the start button is pressed.

13、 Voltage display window

14、 Current display window

15、 Time display window

The range of time is 0.0s~999s. When the time is less than 100s, the time resolution is 0.1s; when the time is greater than or equal to 100s, the time resolution is 1s. If the time is set to 0.0s, then the test time to add count; when the time is not set to 0, the time to reduce count;

17、 DOWN button When setting the time, press this key, the time setting value will decrease;

18、 Current preset adjusting potentiometer

When the "test/preset"(19) button is pressed for the current preset state, the current display window shows the preset current value, adjust clockwise the preset current will increase; adjust anticlockwise the preset current will decrease.

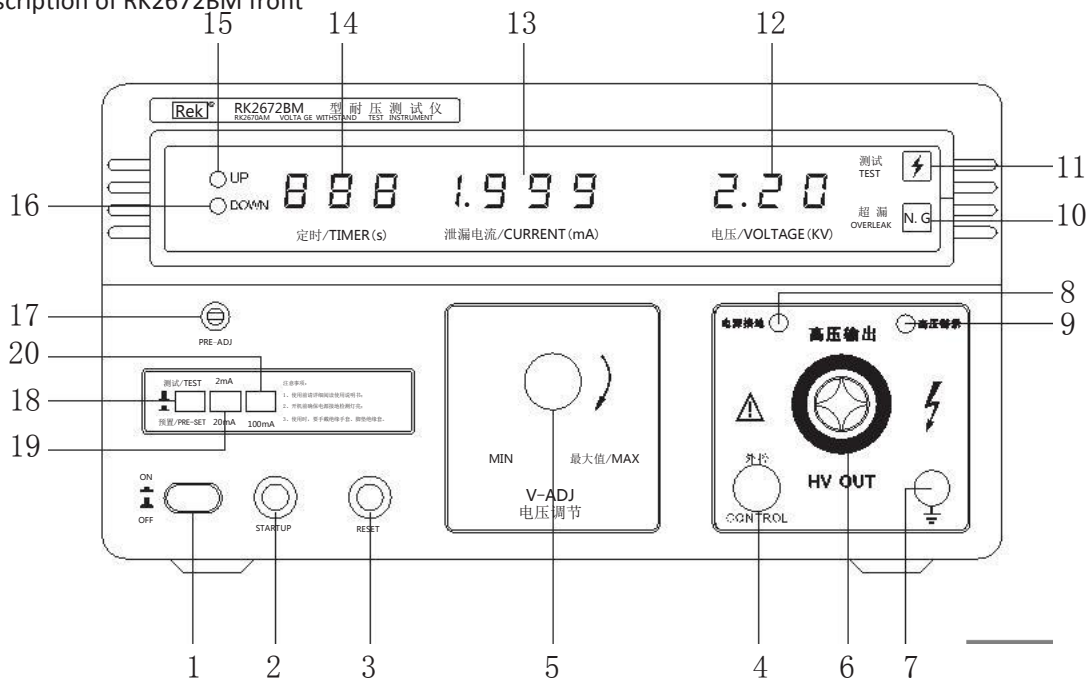
19、 "test/preset" button This button is pressed for the preset current state, and pop-up for the test status.

20、 2mA/20mA switch button This button is pressed for the 20mA file, pop-up for the 2mA file.

21、 AC/DC switch button

This button switches the display voltage is the AC voltage or DC voltage; the window display the DC voltage when it is pressed, the window display the AC voltage when it is pop-up.

### 3.1.3 Description of RK2672BM front faceplate



1、 Power switch

The power switch is pressed down to switch on (on) the instrument power supply, and is ejected to switch off (off) the instrument.

2、 START test button

Press this button to start the test in the reset condition.

3、 REST stop button

During the testing process, as the switch of the interrupt test, when the test object test fails, the superleak lamp (10) will bright, press this button to test the instrument can stop the alarm, and enter the next state.

4、 Interface of remote control

This interface can be matched with the test gun and remote control test stick.

5、 Output voltage regulating knob

In the test process, adjust the knob clockwise, the output voltage will increase; adjust the knob anticlockwise, the output voltage will decrease. Please confirm this knob whether is in the 0 place when in the boot.

6、 High voltage output port

The high pressure output port of test instrument will have high voltage output when in the test, please don't touch the high pressure port, the high voltage output line, the high pressure probe alligator clip and the measured object.

7、Current measuring return port

This terminal is the input port of the measuring current. In the test process, we must pay attention to this terminal can't fall off, if it fall off, the test object will full of high pressure, that it may cause the occurrence of electric shock accident.

8、 Power detection indicator lamp, "power supply grounding,safety" green lamp

Connecting the instrument and the power line use by city electric, the power switch of the tester is placed in the OFF state; if the connection of N,L,G in city electric is correct, the power ground safety indicator lamp will light; if the connection of N,L,G is wrong, then the green lamp doesn't light, please check the power supply.

9、 High voltage output indicator lamp

This lamp is out of control of the electric circuit. If the voltage in the high voltage output port is greater than 110V, this lamp will flash. If in the reset state, the lamp will flash, then the high voltage output port may have high output, it is prohibited to touch any part of the test circuit.

10、 Super leakage indicator lamp This lamp is on when the test is not qualified.

11、 Test indicator lamp This lamp is on when the start button is pressed.

12、 Voltage display window

13、 Current display window

14、 Time display window

The range of time is 0.0s~999s. When the time is less than 100s, the time resolution is 0.1s; when the time is greater than or equal to 100s, the time resolution is 1s. If the time is set to 0.0s, then the test time to add count; when the time is not set to 0, the time to reduce count;

15、 UP button When setting the time, press this key, the time setting value will increases;

16、 DOWN button When setting the time, press this key, the time setting value will decreases;

17、 Current preset adjusting potentiometer

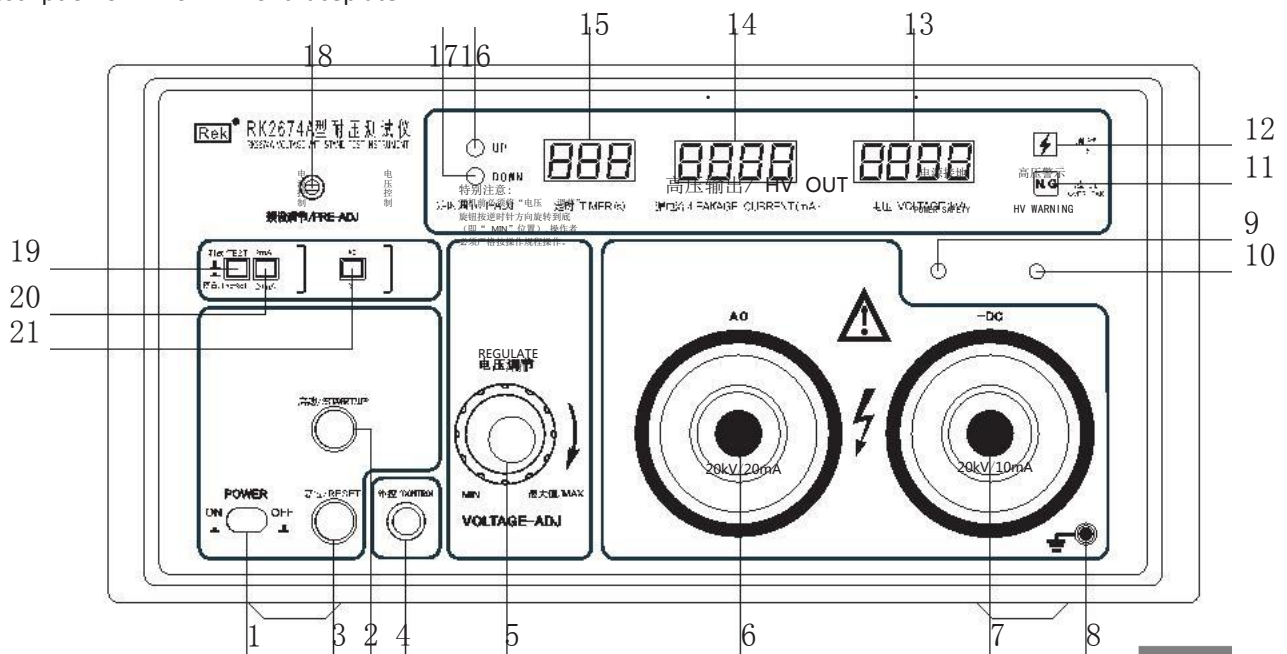
When the "test/preset"(19)button is pressed for the current preset state, the current display window shows the preset current value, adjust clockwise the preset current will increases; adjust anticlockwise the preset current will decreases.

18、 "test/preset" button This button is pressed for the preset current state, and pop-up for the test status.

19、 2mA/20mA switch button This button is pressed for the 20mA file, pop-up for the 2mA file.

20、 100mA button This button is pressed for the 100mA file, pop-up for the 2mA/20mA file.

3.1. 4 Description of RK2674A front faceplate



1、 Power switch

The power switch is pressed down to switch on (on) the instrument power supply, and is ejected to switch off (off) the instrument.

2、 START test button

Press this button to start the test in the reset condition.

3、 REST stop button

During the testing process, as the switch of the interrupt test, when the test object test fails, the superleak lamp (11) will bright, press this button to test the instrument can stop the alarm, and enter the next state.

4、Interface of remote control

This interface must be used with the interface of PLC,it belongs to the optional accessories.

5、 Output voltage regulating knob

In the test process,adjust the knob clockwise,the output voltage will increases;adjust the knob anticlockwise,the output voltage will decreases.Please confirm this knob whether is in the 0 place when in the boot.

6、 AC high voltage output port

7、 DC high voltage output port The DC voltage output from this port is negative voltage.

8、 Current measuring return port

This terminal is the input port of the measuring current.In the test process,we must pay attention to this terminal can't fall off;if it fall off,the test object will full of high pressure,that it may cause the occurrence of electric shock accident.

9、 Power detection indicator lamp, "power supply grounding,safety" green lamp

Connecting the instrument and the power line use by city electric,the power switch of the tester is placed in the OFF state;if the connection of N,L,G in city electric is correct,the power ground safety indicator lamp will light;if the connection of N,L,G is wrong, then the green lamp doesn't light,please check the power supply.

10、 High voltage output indicator lamp

This lamp is out of control of the electric circuit.If the voltage in the high voltage output port is greater than 110V,this lamp will flash.If in the reset state,the lamp will flash,then the high voltage output port may have high output,it is prohibited to touch any part of the test circuit.

11、 Super leakage indicator lamp This lamp is on when the test is not qualified.

12、 Test indicator lamp This lamp is on when the start button is pressed.

13、 Voltage display window

14、 Current display window

15、 Time display window

The range of time is 0.0s~999s.When the time is less than 100s,the time resolution is 0.1s;when the time is greater than or equal to 100s,the time resolution is 1s.If the time is set to 0.0s,then the test time to add count;when the time is not set to 0,the time to reduce count.

16、 UP button When setting the time, press this key, the time setting value will increases;

17、 DOWN button When setting the time, press this key, the time setting value will decreases;

18、 Current preset adjusting potentiometer

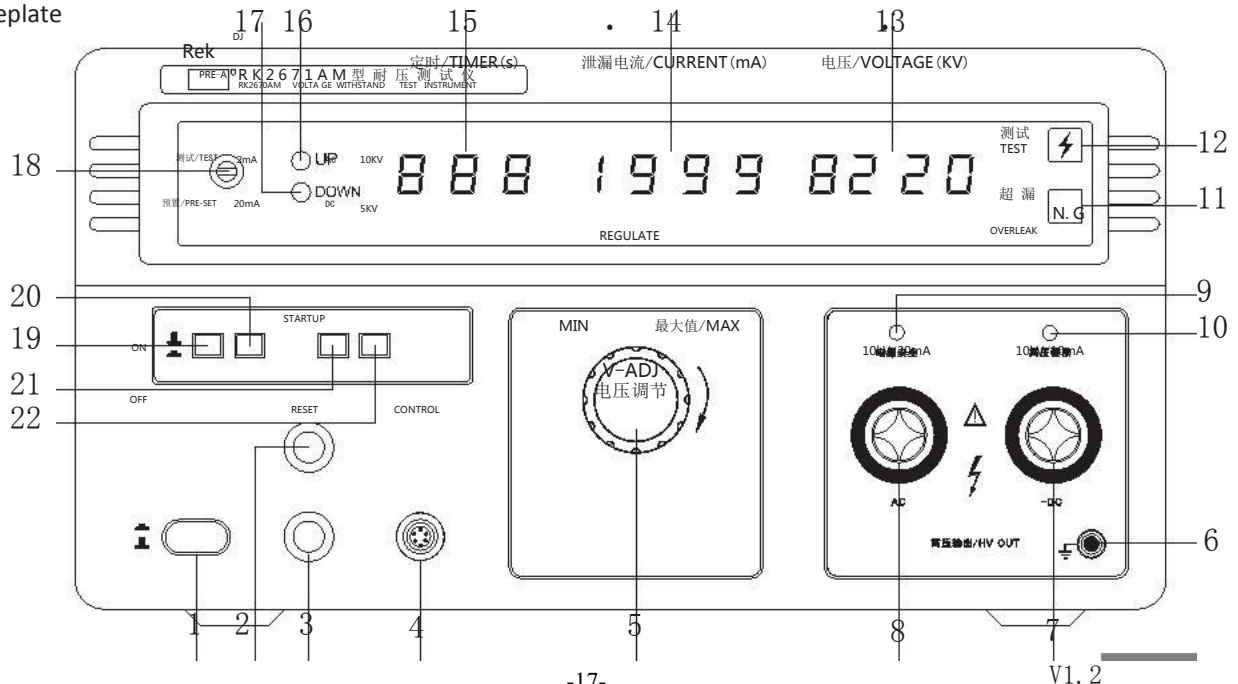
When the "test/preset"(18)button is pressed for the current preset state,the current display window shows the preset current value,adjust clockwise the preset current will increases;adjust anticlockwise the preset current will decreases.

19、 "test/preset" button This button is pressed for the preset current state, and pop-up for the test status.

20、 2mA/20mA switch button This button is pressed for the 20mA file,pop-up for the 2mA file.

21、 AC/DC switch button This button switches the display voltage is the AC voltage or DC voltage;the window display the DC voltage when it is pressed,the window display the AC voltage when it is pop-up.

3.1. 5 Description of RK2671 AM front faceplate



#### 1、 Power switch

The power switch is pressed down to switch on (on)the instrument power supply,and is ejected to switch off(off)the instrument.

#### 2、 START test button

Press this button to start the test in the reset condition.

#### 3、 REST stop button

During the testing process,as the switch of the interrupt test,when the test object test fails,the superleak lamp (11)will bright, press this button to test the instrument can stop the alarm,and enter the next state.

#### 4、 Interface of remote control

This interface can be matched with the test gun and remote control test stick.

#### 5、 Output voltage regulating knob

In the test process,adjust the knob clockwise,the output voltage will increases;adjust the knob anticlockwise,the output voltage will decreases.Please confirm this knob whether is in the 0 place when in the boot.

#### 6、 Current measuring return port

This terminal is the input port of the measuring current.In the test process,we must pay attention to this terminal can't fall off;if it fall off,the test object will full of high pressure,that it may cause the occurrence of electric shock accident.

#### 7、 DC high voltage output port

The DC high pressure output port of test instrument will have high voltage output when in the test,please don't touch the high pressure port,the high voltage output line, the high pressure probe alligator clip and the measured object.After the test is finished, please confirm that the whole circuit is discharged completely then can replace the test object.

#### 8、 AC high voltage output port

The AC high pressure output port of test instrument will have high voltage output when in the test,please don't touch the high pressure port,the high voltage output line, the high pressure probe alligator clip and the measured object.

#### 9、 Power detection indicator lamp, "power supply grounding,safety" green lamp

Connecting the instrument and the power line use by city electric,the power switch of the tester is placed in the OFF state;if the connection of N,L,G in city electric is correct,the power ground safety indicator lamp will light;if the connection of N,L,G is wrong, then the green lamp doesn't light,please check the power supply.

#### 10、 High voltage output indicator lamp

This lamp is out of control of the electric circuit.If the voltage in the high voltage output port is greater than 110V,this lamp will flash.If in the reset state,the lamp will flash,then the high voltage output port may have high output,it is prohibited to touch any part of the test circuit.

11、 Super leakage indicator lamp This lamp is on when the test is not qualified.

12、 Test indicator lamp This lamp is on when the start button is pressed.

#### 13、 Voltage display window

#### 14、 Current display window

#### 15、 Time display window

The range of time is 0.0s~999s.When the time is less than 100s,the time resolution is 0.1s;when the time is greater than or equal to 100s,the time resolution is 1s.If the time is set to 0.0s,then the test time to add count;when the time is not set to 0,the time to reduce count.

16、 UP button When setting the time, press this key, the time setting value will increases;

17、 DOWN button When setting the time, press this key, the time setting value will decreases;

#### 18、 Current preset adjusting potentiometer

When the "test/preset"(19)button is pressed for the current preset state,the current display window shows the preset current value,adjust clockwise the preset current will increases;adjust anticlockwise the preset current will decreases.

19、 "test/preset" button This button is pressed for the preset current state, and pop-up for the test status.

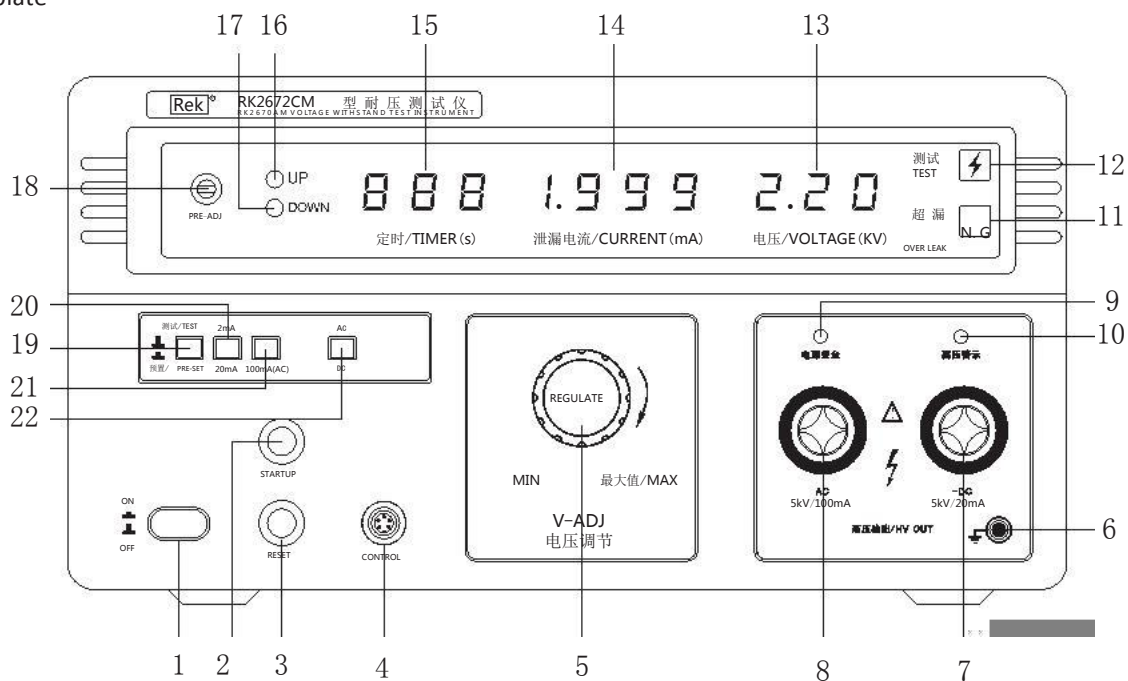
20、 2mA/20mA switch button This button is pressed for the 20mA file,pop-up for the 2mA file.

#### 21、 AC/DC switch button

This button switches the display voltage is the AC voltage or DC voltage;the window display the DC voltage when it is pressed,the window display the AC voltage when it is pop-up.

22、 5kV/10kV voltage file switch This button is pressed for the 5kV file,pop-up for the 10kV file.

### 3.1. 6 Description of RK2672CM front faceplate



**1、 Power switch**

The power switch is pressed down to switch on (on)the instrument power supply,and is ejected to switch off(off)the instrument.

**2、 START test button**

Press this button to start the test in the reset condition.

**3、 REST stop button**

During the testing process,as the switch of the interrupt test,when the test object test fails,the superleak lamp (11)will bright, press this button to test the instrument can stop the alarm,and enter the next state.

**4、 Interface of remote control**

This interface can be matched with the test gun and remote control test stick.

**5、 Output voltage regulating knob**

In the test process,adjust the knob clockwise,the output voltage will increases;adjust the knob anticlockwise,the output voltage will decreases.Please confirm this knob whether is in the 0 place when in the boot.

**6、 Current measuring return port**

This terminal is the input port of the measuring current.In the test process,we must pay attention to this terminal can't fall off;if it fall off,the test object will full of high pressure,that it may cause the occurrence of electric shock accident.

**7、 DC high voltage output port**

The DC high pressure output port of test instrument will have high voltage output when in the test,please don't touch the high pressure port,the high voltage output line, the high pressure probe alligator clip and the measured object.After the test is finished, please confirm that the whole circuit is discharged completely then can replace the test object.

**8、 AC high voltage output port**

The AC high pressure output port of test instrument will have high voltage output when in the test,please don't touch the high pressure port,the high voltage output line, the high pressure probe alligator clip and the measured object.

**9、 Power detection indicator lamp, "power supply grounding,safety"lamp**

Connecting the instrument and the power line use by city electric,the power switch of the tester is placed in the OFF state;if the connection of N,L,G in city electric is correct,the power ground safety indicator lamp will light;if the connection of N,L,G is wrong, then the green lamp doesn't light,please check the power supply.

**10、 High voltage output indicator lamp**

This lamp is out of control of the electric circuit.If the voltage in the high voltage output port is greater than 110V,this lamp will flash.If in the reset state,the lamp will flash,then the high voltage output port may have high output,it is prohibited to touch any part of the test circuit.

**11、 Super leakage indicator lamp This lamp is on when the test is not qualified.**

**12、 Test indicator lamp This lamp is on when the start button is pressed.**

**13、 Voltage display window**

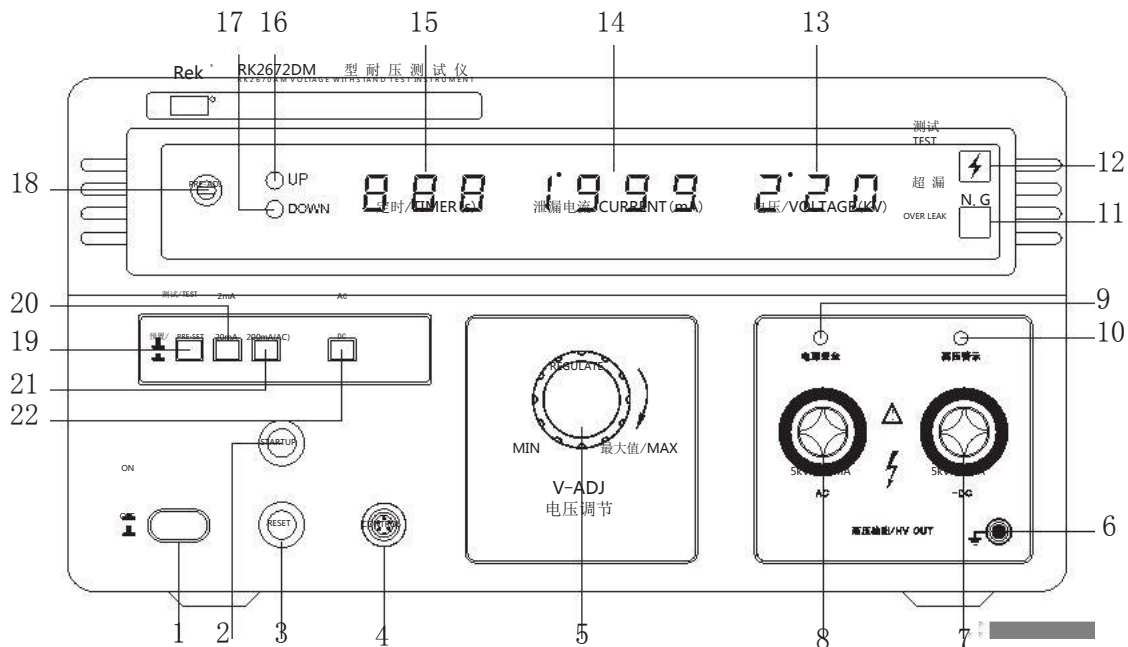
**14、 Current display window**

**15、 Time display window**

The range of time is 0.0s~999s.When the time is less than 100s,the time resolution is 0.1s;when the time is greater than or equal to 100s,the time resolution is 1s.If the time is set to 0.0s,then the test time to add count;when the time is not set to 0,the time to reduce count.

- 16、UP button When setting the time, press this key, the time setting value will increases;
- 17、DOWN button When setting the time, press this key, the time setting value will decreases;
- 18、Current preset adjusting potentiometer  
When the "test/preset"(19)button is pressed for the current preset state,the current display window shows the preset current value,adjust clockwise the preset current will increases;adjust anticlockwise the preset current will decreases.
- 19、"test/preset" button This button is pressed for the preset current state, and pop-up for the test status.
- 20、2mA/20mA switch button This button is pressed for the 20mA file,pop-up for the 2mA file.
- 21、100mA(AC) file This button is pressed for 100mA(AC)
- 22、AC/DC switch button This button switches the display voltage is the AC voltage or DC voltage;the window display the DC voltage when it is pressed,the window display the AC voltage when it is pop-up.

3.1.7 Description of RK2672DM front faceplate



- 1、 Power switch  
The power switch is pressed down to switch on (on)the instrument power supply,and is ejected to switch off(off)the instrument.
- 2、 START test button  
Press this button to start the test in the reset condition.
- 3、 REST stop button  
During the testing process,as the switch of the interrupt test,when the test object test fails,the superleak lamp (11)will bright, press this button to test the instrument can stop the alarm,and enter the next state.
- 4、 Interface of remote control  
This interface can be matched with the test gun and remote control test stick.
- 5、 Output voltage regulating knob  
In the test process,adjust the knob clockwise,the output voltage will increases;adjust the knob anticlockwise,the output voltage will decreases.Please confirm this knob whether is in the 0 place when in the boot.
- 6、 Current measuring return port  
This terminal is the input port of the measuring current.In the test process,we must pay attention to this terminal can't fall off;if it fall off,the test object will full of high pressure,that it may cause the occurrence of electric shock accident.
- 7、 DC high voltage output port  
The DC high pressure output port of test instrument will have high voltage output when in the test,please don't touch the high pressure port,the high voltage output line, the high pressure probe alligator clip and the measured object.After the test is finished, please confirm that the whole circuit is discharged completely then can replace the test object.
- 8、 AC high voltage output port  
The AC high pressure output port of test instrument will have high voltage output when in the test,please don't touch the high pressure port,the high voltage output line, the high pressure probe alligator clip and the measured object.
- 9、 Power detection indicator lamp,"power supply grounding,safety"lamp  
Connecting the instrument and the power line use by city electric,the power switch of the tester is placed in the OFF state;if the connection of N,L,G in city electric is correct,the power ground safety indicator lamp will light;if the connection of N,L,G is wrong, then the green lamp doesn't light,please check the power supply.

10、High voltage output indicator lamp

This lamp is out of control of the electric circuit.If the voltage in the high voltage output port is greater than 110V,this lamp will flash.If in the reset state,the lamp will flash,then the high voltage output port may have high output,it is prohibited to touch any part of the test circuit.

11、 Super leakage indicator lamp This lamp is on when the test is not qualified.

12、 Test indicator lamp This lamp is on when the start button is pressed.

13、 Voltage display window

14、 Current display window

15、 Time display window

The range of time is 0.0s~999s.When the time is less than 100s,the time resolution is 0.1s;when the time is greater than or equal to 100s,the time resolution is 1s.If the time is set to 0.0s,then the test time to add count;when the time is not set to 0,the time to reduce count.

16、 UP button When setting the time, press this key, the time setting value will increases;

17、 DOWN button When setting the time, press this key, the time setting value will decreases;

18、 Current preset adjusting potentiometer

When the "test/preset"(19)button is pressed for the current preset state,the current display window shows the preset current value,adjust clockwise the preset current will increases;adjust anticlockwise the preset current will decreases.

19、 "test/preset" button This button is pressed for the preset current state, and pop-up for the test status.

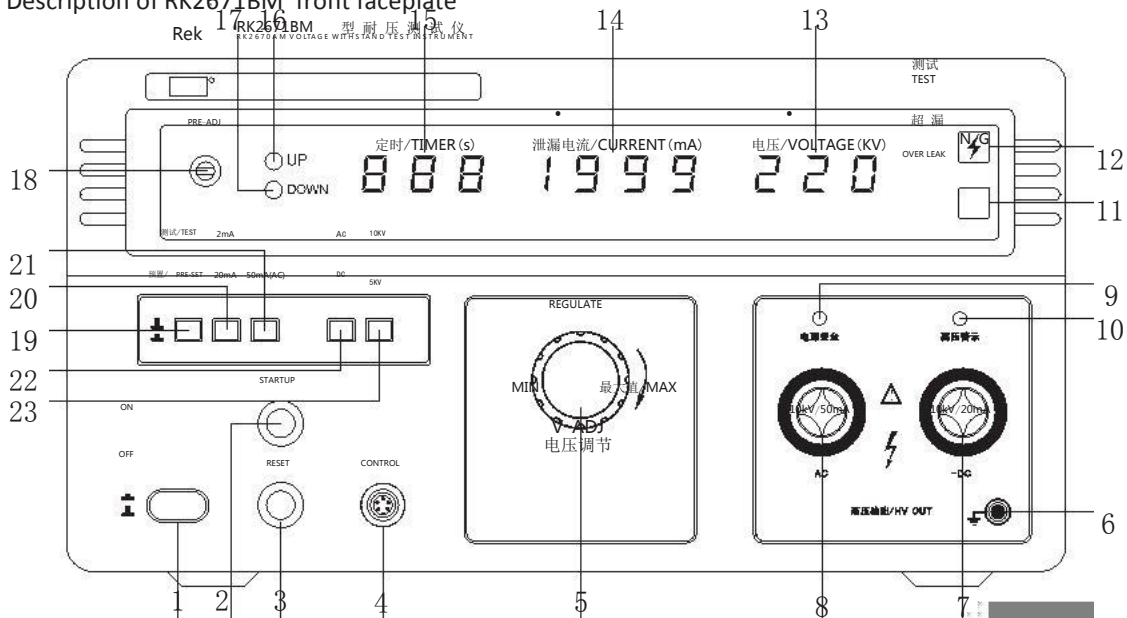
20、 2mA/20mA switch button This button is pressed for the 20mA file,pop-up for the 2mA file.

21、 200mA(AC) file This button is pressed for the 200mA(AC)

22、 AC/DC switch button

This button switches the display voltage is the AC voltage or DC voltage;the window display the DC voltage when it is pressed,the window display the AC voltage when it is pop-up.

3.1.8 Description of RK2671BM front faceplate



1、 Power switch

The power switch is pressed down to switch on (on)the instrument power supply,and is ejected to switch off(off)the instrument.

2、 START test button

Press this button to start the test in the reset condition.

3、 REST stop button

During the testing process,as the switch of the interrupt test,when the test object test fails,the superleak lamp (11)will bright, press this button to test the instrument can stop the alarm,and enter the next state.

4、 Interface of remote control

This interface can be matched with the test gun and remote control test stick.

5、 Output voltage regulating knob

In the test process,adjust the knob clockwise,the output voltage will increases;adjust the knob anticlockwise,the output voltage will decreases.Please confirm this knob whether is in the 0 place when in the boot.



6、 Current measuring return port

This terminal is the input port of the measuring current. In the test process, we must pay attention to this terminal can't fall off, if it fall off, the test object will full of high pressure, that it may cause the occurrence of electric shock accident.

7、 DC high voltage output port

The DC high pressure output port of test instrument will have high voltage output when in the test, please don't touch the high pressure port, the high voltage output line, the high pressure probe alligator clip and the measured object. After the test is finished, please confirm that the whole circuit is discharged completely then can replace the test object.

8、 AC high voltage output port

The AC high pressure output port of test instrument will have high voltage output when in the test, please don't touch the high pressure port, the high voltage output line, the high pressure probe alligator clip and the measured object.

9、 Power detection indicator lamp, "power supply grounding, safety" lamp

Connecting the instrument and the power line use by city electric, the power switch of the tester is placed in the OFF state; if the connection of N, L, G in city electric is correct, the power ground safety indicator lamp will light; if the connection of N, L, G is wrong, then the green lamp doesn't light, please check the power supply.

10、 High voltage output indicator lamp

This lamp is out of control of the electric circuit. If the voltage in the high voltage output port is greater than 110V, this lamp will flash. If in the reset state, the lamp will flash, then the high voltage output port may have high output, it is prohibited to touch any part of the test circuit.

11、 Super leakage indicator lamp This lamp is on when the test is not qualified.

12、 Test indicator lamp This lamp is on when the start button is pressed.

13、 Voltage display window

14、 Current display window

15、 Time display window

The range of time is 0.0s~999s. When the time is less than 100s, the time resolution is 0.1s; when the time is greater than or equal to 100s, the time resolution is 1s. If the time is set to 0.0s, then the test time to add count; when the time is not set to 0, the time to reduce count.

16、 UP button When setting the time, press this key, the time setting value will increases;

17、 DOWN button When setting the time, press this key, the time setting value will decreases;

18、 Current preset adjusting potentiometer

When the "test/preset"(19) button is pressed for the current preset state, the current display window shows the preset current value, adjust clockwise the preset current will increases; adjust anticlockwise the preset current will decreases.

19、 "test/preset" button This button is pressed for the preset current state, and pop-up for the test status.

20、 2mA/20mA switch button This button is pressed for the 20mA file, pop-up for the 2mA file.

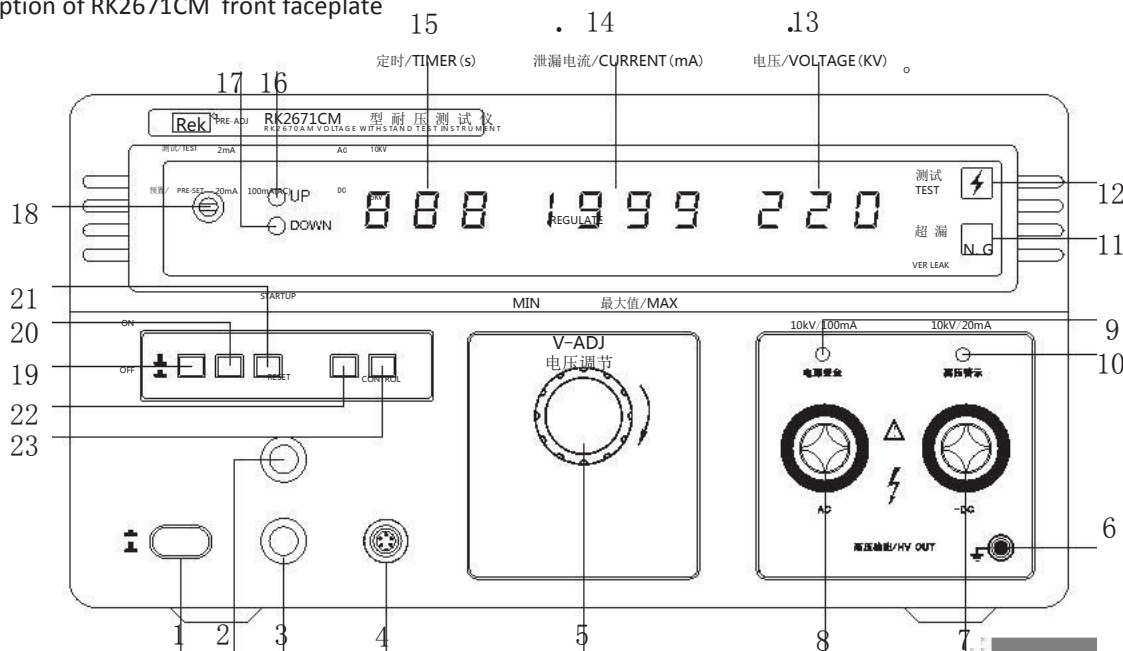
21、 50mA(AC) file This button is pressed for the 50mA(AC).

22、 AC/DC switch button

This button switches the display voltage is the AC voltage or DC voltage; the window display the DC voltage when it is pressed, the window display the AC voltage when it is pop-up.

23、 5kV/10kV voltage file switch This button is pressed for the 5kV, and pop-up for the 10kV.

3.1.9 Description of RK2671CM front faceplate



#### 1、 Power switch

The power switch is pressed down to switch on (on)the instrument power supply,and is ejected to switch off(off)the instrument.

#### 2、 START test button

Press this button to start the test in the reset condition.

#### 3、 REST stop button

During the testing process,as the switch of the interrupt test,when the test object test fails,the superleak lamp (11)will bright, press this button to test the instrument can stop the alarm,and enter the next state.

#### 4、 Interface of remote control

This interface can be matched with the test gun and remote control test stick.

#### 5、 Output voltage regulating knob

In the test process,adjust the knob clockwise,the output voltage will increases;adjust the knob anticlockwise,the output voltage will decreases.Please confirm this knob whether is in the 0 place when in the boot.

#### 6、 Current measuring return port

This terminal is the input port of the measuring current.In the test process,we must pay attention to this terminal can't fall off,if it fall off,the test object will full of high pressure,that it may cause the occurrence of electric shock accident.

#### 7、 DC high voltage output port

The DC high pressure output port of test instrument will have high voltage output when in the test,please don't touch the high pressure port,the high voltage output line, the high pressure probe alligator clip and the measured object.After the test is finished, please confirm that the whole circuit is discharged completely then can replace the test object.

#### 8、 AC high voltage output port

The AC high pressure output port of test instrument will have high voltage output when in the test,please don't touch the high pressure port,the high voltage output line, the high pressure probe alligator clip and the measured object.

#### 9、 Power detection indicator lamp,"power supply grounding,safety"lamp

Connecting the instrument and the power line use by city electric,the power switch of the tester is placed in the OFF state;if the connection of N,L,G in city electric is correct,the power ground safety indicator lamp will light;if the connection of N,L,G is wrong, then the green lamp doesn't light,please check the power supply.

#### 10、 High voltage output indicator lamp

This lamp is out of control of the electric circuit.If the voltage in the high voltage output port is greater than 110V,this lamp will flash.If in the reset state,the lamp will flash,then the high voltage output port may have high output,it is prohibited to touch any part of the test circuit.

11、 Super leakage indicator lamp This lamp is on when the test is not qualified.

12、 Test indicator lamp This lamp is on when the start button is pressed.

#### 13、 Voltage display window

#### 14、 Current display window

#### 15、 Time display window

The range of time is 0.0s~999s.When the time is less than 100s,the time resolution is 0.1s;when the time is greater than or equal to 100s,the time resolution is 1s.If the time is set to 0.0s,then the test time to add count;when the time is not set to 0,the time to reduce count.

16、 UP button When setting the time, press this key, the time setting value will increases;

17、 DOWN button When setting the time, press this key, the time setting value will decreases;

#### 18、 Current preset adjusting potentiometer

When the "test/preset"(19)button is pressed for the current preset state,the current display window shows the preset current value,adjust clockwise the preset current will increases;adjust anticlockwise the preset current will decreases.

19、 "test/preset"  
button This button is pressed for the preset current state, and pop-up  
for the test status.

20、 2mA/20mA switch button This button is pressed for the 20mA file,pop-up for  
the 2mA file.

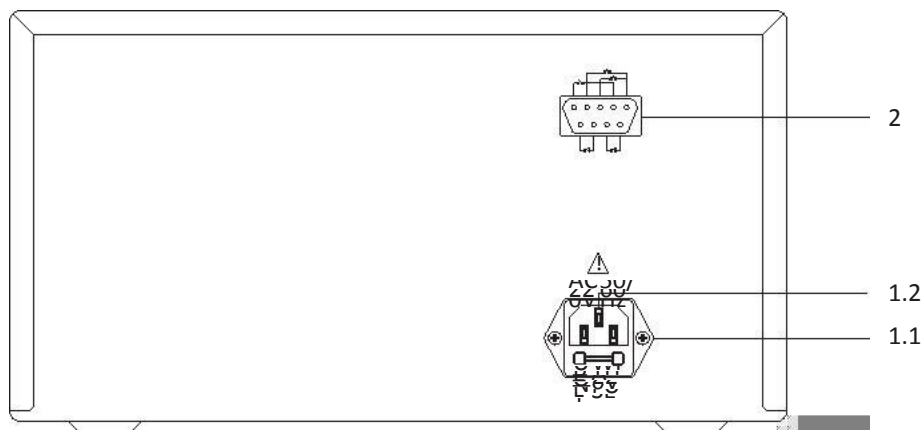
21、 100mA(AC) files This button is pressed for the  
100mA(AC)

#### 22、 AC/DC switch button

This button switches the display voltage is the AC voltage or DC voltage;the window display the DC voltage when it is pressed,the window display the AC voltage when it is pop-up.

23、 5kV/10kV voltage file switch This button is pressed for the 5kV,pop-up  
for the 10kV.

### 3.2 Description of rear faceplate



#### 3.2.1、 Input power outlet

1.1、 Three-core two-phase power supply socket.The power socket is equipped with a fuse;please refer to 1.7. about the selection of the input voltage and the replacement of the fuse.

1.2、 Power supply ground wire protecting ground port,this protecting grounding port must be connected to the protective ground reliably.Otherwise,the shell of the tester may be filled with high pressure,causing the occurrence of electric shock.

#### 3.2.2、 Interface of PLC

2.1、 About the detailed description of the PLC interface,please refer to the sixth chapter.

# 4

## Summary of instrument function

In this chapter, the function of the tester is described in detail. Please read the contents of this chapter before operating the tester;

- 4.1 Summary
- 4.2 Introduction of  
instrument  
function

## 4.1 Summary

This tester is the basic type withstand voltage tester,with excellent cost performance; the voltage regulate the output through the regulator,with high reliability,high durability.Using high brightness LED digital tube to display test time,voltage,current,and can display the breakdown current value and voltage value real-time;the alarm current value can preset arbitrary;the test time display by three digital tube,the minimum resolution of time is 0.1s and the range of preset time is from 0.0s to 999s.It with the interface of signal input and output for PLC,can easily form an integrated test system with PLC.It is able to measure the compression strength electronic components,household appliances,insulating materials,instruments and meters,electric lighting,electric heating appliance quickly and accurately.

This series of testing instruments according with the following standards:

Standard for household electrical appliances(IEC6035,GB4706.1-2001,GB4706.1-1998),Standard for lamp(IEC60598-1-1999, GB7000.1-2000),Standard for information(GB8898-2001,GB12113.GB4943-2001,IEC60065,IEC60950)and so on.

## 4.2 Introduction of instrument function

### 4.2.1 Detecting the connection of the input power whether is correct

This series of safety tester all adopt the I type working mode of the shell grounding to ensure the safety of the operator,but when the power circuit is connected to the wrong polarity(the correct connection for the left,right,upper grounding)will cause the risk of shell charged.This series of tester with detection function of power safety,plug in the power supply when tester shutdown,there is the "power supply security" indicator on the front faceplate,if the lamp bright,that the input power is correct,it can use when boot-strap,if the lamp doesn't bright,that the input power is wrong,please don't boot-strap,please eliminate power failure before use.

### 4.2.2 Timing test function

After setting the timing value(greater than 0),the counter start to the countdown when test.After the countdown value reaches 0, it will stop time and cut off the output voltage automatically.When the test time is setted to "0.0s",the tester will be tested after starting the test continuously until the user press the "REST" key to stop testing.Whether timing testing or continuous testing,the user can press the "REST" button to stop testing and close high voltage output at any time.

### 4.2.3 The interface of remote control and PLC

The series of tests can be equipped with remote control stick,as long as received (CONTROL)port,can realize the machine startup or reset control;and can also connected to the button through the corresponding terminal of the PLC interface on the machine, it can realize the machine startup or reset control.

### 4.2.4 High voltage warning lamp function

This series of safety tester using a bright red LED indicator to ensure the safety of the operator.This indicating lamp isn't bright when the tester start testing but the output voltage is lower than the setted voltage,the indicating lamp will bright when the output voltage is higher than the setted voltage,even if the tester in stop state,if the the output voltage of high voltage output port is greater than the set voltage the indicator light will be lit,to warn of a high pressure,it should not touch any objects of the H.V output port,to prevent electric shock.

# 5

## Technical parameter

The technical parameters of various tester are introduced in detail in this chapter.

- 5.1 Comparison table of type function
- 5.2 Technical parameter

### 5.1 Comparison table of type function

RK2670AM: The maximum output voltage of AC withstand voltage tester is 5kV, The maximum testing current of AC withstand voltage tester is 20mA

RK2672AM: The maximum output voltage of AC and DC withstand voltage tester is 5kV, The maximum testing AC current is 20mA ,DC current is 10mA

RK2672BM: The maximum output voltage of AC withstand voltage tester is 5kV, The maximum testing current of AC withstand voltage tester is 100mA

RK2672CM: The maximum output voltage of AC and DC withstand voltage tester is 5kV, The maximum testing AC current is 100mA ,DC current is 20mA

RK2672DM: The maximum output voltage of AC and DC withstand voltage tester is 5kV, The maximum testing AC current is 200mA ,DC current is 20mA

RK2671AM: The maximum output voltage of AC and DC withstand voltage tester is 10kV, The maximum testing AC current is 20mA ,DC current is 10mA

RK2671BM: The maximum output voltage of AC and DC withstand voltage tester is 10kV, The maximum testing AC current is 50mA ,DC current is 20mA

RK2671CM: The maximum output voltage of AC and DC withstand voltage tester is 10kV, The maximum testing AC current is 100mA ,DC current is 20mA

RK2674A: The maximum output voltage of AC and DC withstand voltage tester is 20kV, The maximum testing AC current is 20mA ,DC current is 10mA

## 5.2 Technical parameter

### 5.2.1 Technical parameter of RK2670AM,RK2672AM,RK2672BM,RK2672CM,RK2672DM

Parameter \ Type		RK2670AM	RK2672AM	RK2672BM	RK2672CM	RK2672DM
ACW	Output voltage range	(0.00~5.00)kV				
	Maximum(power) output	100VA(5.0kV/20mA)		500VA(5.0kV/100mA)		1000VA(5.0kV/200mA)
	Maximum rated current	20mA		100mA		200mA
	Current file	2mA,20mA		2mA,20mA,100mA		2mA,20mA,200mA
	Output waveform	Sine wave				
	Output waveform distortion	≤5%(No-load or pure resistive load)				
	Test time	0.0s~999s 0.0=continuous test				
DCW	Output voltage range		(0.00~5.00)kV			(0.00~5.00)kV
	Maximum (power)output		50VA (5.0KV/10mA)			100VA(5.0KV/20mA)
	Maximum rated current		10mA			20mA
	Current file		2mA,10mA			2mA,20mA
	Ripple factor		≤5%			≤5%
	Test time		0.0s~999s 0.0=continuous test			0.0s~999s 0.0=continuous test
V	Range	(0.00~5.00KV)				
	Accuracy	±(5%+3 words)				
	Resolution	10V				
	Display value	Root mean square value				
A	Measuring range	AC	0.100mA~20.0mA	0.100mA~100mA		0.100mA~200mA
		DC	----- 0.100mA~10.0mA	-----		0.100mA~20.0mA
	Resolution	2mAfile:1uA,20mA file:10uA,100mA(200mA) file:0.1mA				
Measuring accuracy	±(5%+3 words)					
Timer	Range	0.0s~999s				
	Minimum resolution	0.1s				
	Accuracy	±(1%+50ms)				
	Interface of PLC	Optional		Optional		
	Remote control interface	Yes				
Exterior dimension	315*285*175mm			440*380*180mm	430*375*190mm	
Weight	8.76Kg	9.10Kg	13.72Kg	18.2Kg	24.6Kg	



5.2.2 Technical parameter of RK2671AM,RK2671BM,RK2671CM

Parameter		Type	RK2671AM	RK2671BM	RK2671CM
ACW	Output voltage range	(0.00~10.00)kV			
	Maximum (power)output	200VA(10.0kV/20mA)	500VA(10. 0kV/50mA)	1000VA(10. 0kV/100mA)	
	Maximum rated current	20mA	50mA	100mA	
	Current file	2mA,20mA	2mA,20mA,50mA	2mA,20mA,100mA	
	Output waveform	Sine wave			
	Output waveform distortion	≤5%(No-load or pure resistive load)			
DCW	Test time	0.0s~999s 0.0=continuous test			
	Output voltage range	(0.00 ~ 10.0) kV			
	Maximum (power)output	100VA(10.0KV/10mA)	200VA(10.0KV/20mA)		
	Maximum rated current	10mA	20mA		
	Current file	2mA,10mA	2mA,20mA		
	Ripple factor	≤5%			
Vometer	Test time	0.0s~999s 0.0=continuous tes			
	Range	(0.00~10.0KV)			
	Accuracy	± (5%+3 words)			
	Resolution	10V			
	Display value	Root mean square value			
	Ammeter	Measuring range	AC	0.100mA ~20.0mA	0.100mA ~50mA
DC			0.100mA ~10.0mA	0.100mA ~20.0mA	
Resolution		2mA file:1uA, 20mA file:10uA,50mA(100mA) file:0.1mA			
Measuring accuracy		± (5%+3 words)			
Timer	Range	0.0s~999s			
	Minimum resolution	0.1s			
	Accuracy	± (1%+50ms)			
	Interface of PLC	Optional			
	Remote control interface	Yes			
Exterior dimension		380*305*195mm	443*390*220mm	440*380*180mm	
Weight		14.76Kg	25Kg	18.2Kg	

5.2.2 Technical parameter of RK2674A

Parameter		Type	RK2674A
ACW	Output voltage range		(0.00~20.0)kV
	Maximum (power)output		400VA(20.00kV /20mA )
	Maximum rated current		20mA
	Current file		2mA,20mA
	Output waveform		Sine wave
	Output waveform distortion		≤5%(No-load or pure resistive load)
	Test time		0.0s~999s 0.0=continuous test
DCW	Output voltage range		(0.00~20.0)kV
	Maximum (power)output		200VA(20.0KV/10mA)
	Maximum rated current		10mA
	Current file		2mA,10mA
	Ripple factor		≤5%
	Test time		0.0s~999s 0.0=continuous test
Voltmeter	Range		(0.00~20.0KV)
	Accuracy		±(5%+3 words)
	Resolution		10V
	Display value		Root mean square value
Ammeter	Measuring range	AC	0.100mA~20.0mA
		DC	0.100mA~10.0mA
	Resolution		2mA file:1uA,20mA file:10uA
	Measuring accuracy		±(5%+3 words)
Timer	Range		0.0s~999s
	Minimum resolution		0.1s
	Accuracy		±(1%+50ms)
	Interface of PLC		Optional
	Remote control interface		Optional
Exterior dimension			450 *515*230mm
Weight			34.9Kg

# 6

## Interface of PLC

The usage of PLC interface is described in this chapter;

6.1 Input,output signal of PLC interface

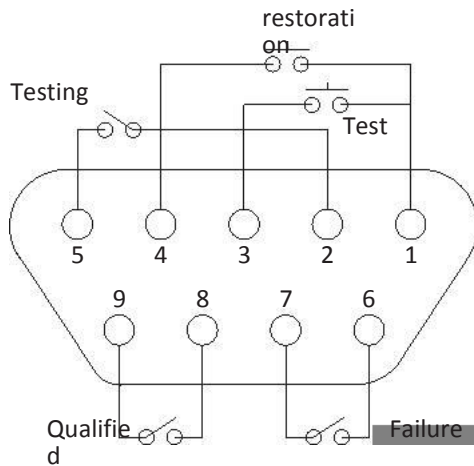
6.2 Wiring

6.3 Connection instructions of remote control input signal and output signal

6.4 Electrical characteristics of PLC interface

Remote terminal on the back board of the tester, it can be connected to the remote operation. Terminal for standard 9PIN type terminal block, divided into input signal terminal and output connection terminal

### 6.1 Input, output signal of PLC interface



Note:

Serial line color of optional accessories 9PIN corresponds to the serial number of DB9 as follows::

- |           |             |
|-----------|-------------|
| 1、 red    | 6、 purple   |
| 2、 orange | 7、 white    |
| 3、 green  | 8、 grey     |
| 4、 yellow | 9、 blue     |
| 5、 black  | Empty:Brown |

### 6.2 Wiring

TEST control: The control switch is connected between the PIN1 and the PIN3.

RESET control: The control switch is connected between the PIN1 and the PIN4.

Testing signal output: Between PIN2 and PIN5.

Test qualified signal: Between PIN8 and PIN9.

Test failure signal: Between PIN6 and PIN7.

### 6.3 Connection instructions of remote control input signal and output signal

The tester is equipped with a remote control point, which can be operated by the external remote control device of TEST and RESET functions. These contacts provide a power supply with a control function, the "momentary contact" switch must be used as a controller.

Special note: It can not be connected to any other power supply absolutely, if you input the other power will cause damage to the internal circuit of the instrument.

The output signal provides relay contact output.

### 6.4 Electrical characteristics of PLC interface

Output contact without voltage, the maximum voltage supported: 12V AC/DC the maximum current: 100mA

The input terminal is connected to the non-voltage control contact, null terminal voltage: < 10VDC

# 7

## Setting of instrument parameter

The parameter setting of the tester are introduced in detail in this chapter.

- 7.1 Presetting of test time
- 7.2 Presetting of AC current alarm value
- 7.3 Presetting of DC current alarm value
- 7.4 Adjustment of output voltage

## 7.1 Presetting of test time

### 7.1.1 The preset conditions of test time

The tester must be in a reset state,that is the tester can't be in a state of test and alarm.

### 7.1.2 Preset method

#### 7.1.2.1 Time increases

In the front faceplate has a UP button,click on this button,the time preset value plus 1;if you hold this key,preset time continuous add 1,when added to a certain value,preset time continuous add 10;until 999s.

#### 7.1.2.2 Time decreases

In the front faceplate has a DOWN button,click on this button,the time preset value minus 1;if you hold this key,preset time continuous minus 1,when reduced to a certain value,preset time continuous minus 10;until 0.0s.

## 7.2 Presetting of AC current alarm value

### 7.2.1 The preset conditions of AC current alarm value

The AC/DC button on the front faceplate is opened, that is, the tester is in a AC state.Note: single AC tester without this step.

### 7.2.2 Preset method

Press the "test/preset" button,the current display window shows the current preset value;use the debug driver clockwise to adjust preset adjust potentiometer of current,preset current increased;adjust counterclockwise,preset current is reduced;set the alarm value of current to the required value of the test,pop up the "test / preset" button.

## 7.3 Presetting of DC current alarm value(Single AC withstand voltage tester without this function)

### 7.3.1 The preset conditions of DC current alarm value

The AC/DC button on the front faceplate is opened, that is, the tester is in a DC state.

### 7.3.2 Preset method

Press the "test/preset" button,the current display window shows the current preset value;use the debug driver clockwise to adjust preset adjust potentiometer of current,preset current increased;adjust counterclockwise,preset current is reduced;set the alarm value of current to the required value of the test,pop up the "test / preset" button.

## 7.4 Adjustment of output voltage

When the voltage regulator knob is in the 0 place,even if start the tester,it has no high voltage output;after starting the tester, adjust the output voltage adjusting knob clockwise,the output voltage increased,and reach the voltage required for testing.

# 8

## Instrument test function

In this chapter, we introduce the testing function of all kinds of testing instruments.

8.1 Preparation before testing

8.2 Testing method

## 8.1 Preparation before testing

### 8.1.1 Anti electric shock

Please wear insulated gloves,put the foot pad and then engaged in the related operation of high voltage.Note:the extent of insulated gloves,insulated pad is two times as the maximum output voltage of the operating tester at least.

### 8.1.2 Setting the current alarm value and test time

The setting method please refer to the seventh chapter.

### 8.1.3 Connecting tester with the test objects

Please confirm before connecting the tester with the tested objects;

- 1、 Tester is in shutdown or reset state;
- 2、 High pressure indicator lamp doesn't light;
- 3、 The voltage indicative window indicates the voltage is 0 or 0.01;

The current test port of the tester is connected with the tested objects at first,and then connect the high-voltage wire and the test objects.

## 8.2 Testing method

### 8.2.1 Manual test

The test time is setted to 0,the tester doesn't judge the test time,the tester is in a state of continuous testing.

Press "START" key,tester start to test,test lamp will lights,adjust the output voltage regulating knob to reach the test voltage value required.After the testing,press the "REST" key to stop the testing.During the test,if the test current is higher than the preset value, the tester will alarm.At this time,press the "REST" button that can eliminate the alarm.Replace the test objects,that can continue to test.

### 8.2.2 Automatic test

The test time don't setted to 0;press "START" button,tester start to test,the test lamp will light,timer countdown,adjust the output voltage regulating knob to reach the voltage test value required.During the test,if the test current is higher than the preset value,the tester will alarm.At this time,press the "REST" button that can eliminate the alarm.If the timer to 0,tester no alarm,that is qualified for tested.

Note:when testing by use of the DC output voltage,the replacement of the test object,it must be sure to ensure that the measurement circuit doesn't have the power.



# 9

## Accessories and warranty

### 9.1 Accessories

1、 Power cord	1 root
2、 High pressure test clamp	1 root
3、 High pressure stick(RK2674A none)	1 root
4、 Ground wire	1 root
5、 Instruction manual	1 copy
6、 Quality assurance	1 copy
7、 Product qualification certificate	1 copy

After the user receives the instrument,should check the contents of the box,if there is a shortage,please contact with our company or distribution unit.

### 9.2 Warranty

#### 9.2.1 Warranty

##### Period

1、 The use units purchase instrument from the company,calculate since the date of shipment of the company,purchase from the dstrubution department,calculate since the date of shipment of the distribution unit,the whole machine warranty period of 12 months.

2、 The warranty period of perishable products such as accessories is 6 months.

#### 9.2.2 Warranty

It should issue the instrument warranty card when repair.Our company provide the lifelong maintenance services for all external equipment.In the warranty period,due to the improper operation of the user and damage to the instrument,the maintenance costs will assumed by the user.

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