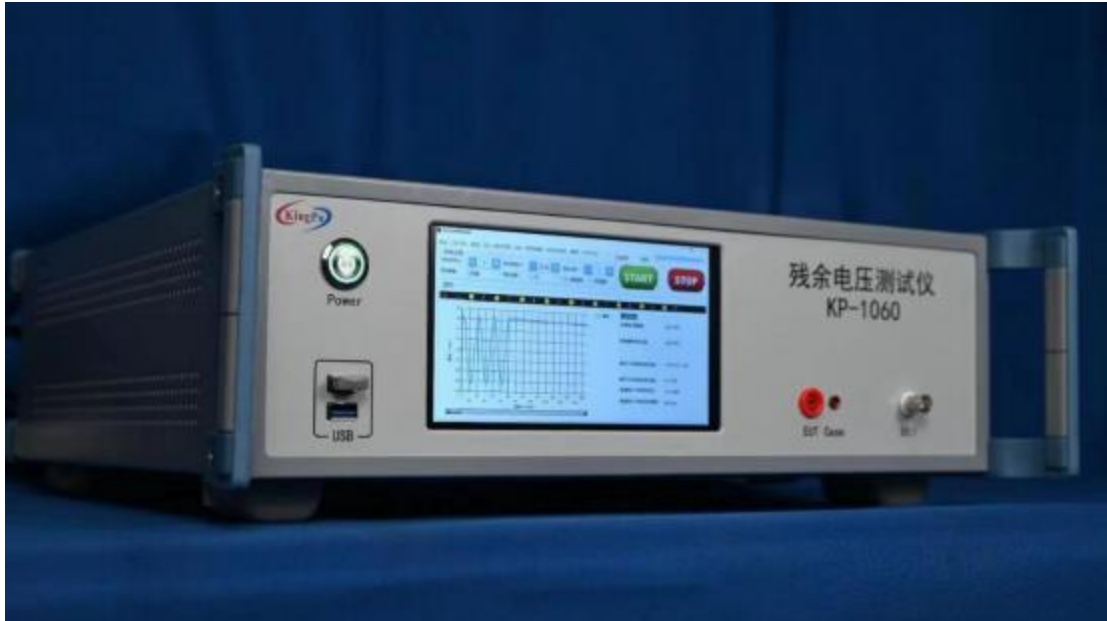


KP-1060 Capacitor Discharge Tester



1. Product Features

Residual discharge tester / residual voltage tester is based on national standards IEC60601.1 Medical Electrical Equipment First Edition Part 1: General requirements for safety” , IEC60335.1

“Safety of household and similar electrical appliances Part 1: Safety requirements” 22.5 Provisions: “Equipment connected to the power supply network with a plug must be designed to 1s When the power pins are connected and the voltage between each power pin and the device housing. ”Design. This instrument has a high enough test impedance to simulate disconnection The plug method disconnects the device from the grid voltage at the peak state and is used for residual power of electrical equipment such as medical equipment and household appliances. Pressure test

2. Main technical parameters:

1) Output voltage : AC $0 \sim 300V$, 50/60 Hz ;

The maximum output current does

not exceed 10A, maximum load

power 3 KVA power supply time: 1-

99s Continuously adjustable

The instrument automatically judges to disconnect at the voltage peak for testing, and disconnection is optional at positive /reverse polarity

2) Test voltage : 10 ~ 300V Display resolution 0.1V

3) Test time : disconnect 1 sec /2 Test

after seconds, disconnection time is

optional; Number of measurements: 1-99 Any

value within

4) Test impedance: $100 \pm 5 \text{ M}\Omega$;

5) Use industrial computers to collect, control and display all test data

9) Test power supply: external test power supply

10) Approximate size of the whole machine: 3U Standard chassis

11) NI Capture Card: Resolution **14 bits** Sampling rate **48 kS/s**

12) Power-off test when the equipment power voltage is at its peak value ensures the accuracy and consistency of the test data;

Test impedance $100 \pm 5 \text{ M}\Omega$, Capacitance is less than **25 pF** , satisfy **LG, LN, NG** Interelectrode and accessible capacitors

Impedance requirements for residual voltage and energy testing;

Multi-form testing capabilities.

A. Residual voltage between each power pin;

B. Residual voltage between each power pin and the device housing ;

C. Residual voltage and energy test of capacitors accessible outside the equipment;

13) Manual /automatic switching test. That is, the phase separation test between poles can be performed manually. 2 Inter-electrode test **10** times; also To carry out automatic testing, test the combination of three poles, and test each combination separately **10** Second-rate;

14) Automatically maintain the maximum test voltage value, and test the residual voltage exceeding **60/34V** automatic alarm.

15) Equipped with three standard inspection samples (**102/70/44 V**)

3. Test data (three standard samples are used for testing. Different samples with the same specifications may have different errors due to electronic components. **3%** Left and right error):

sample

1:

Theoretic

al

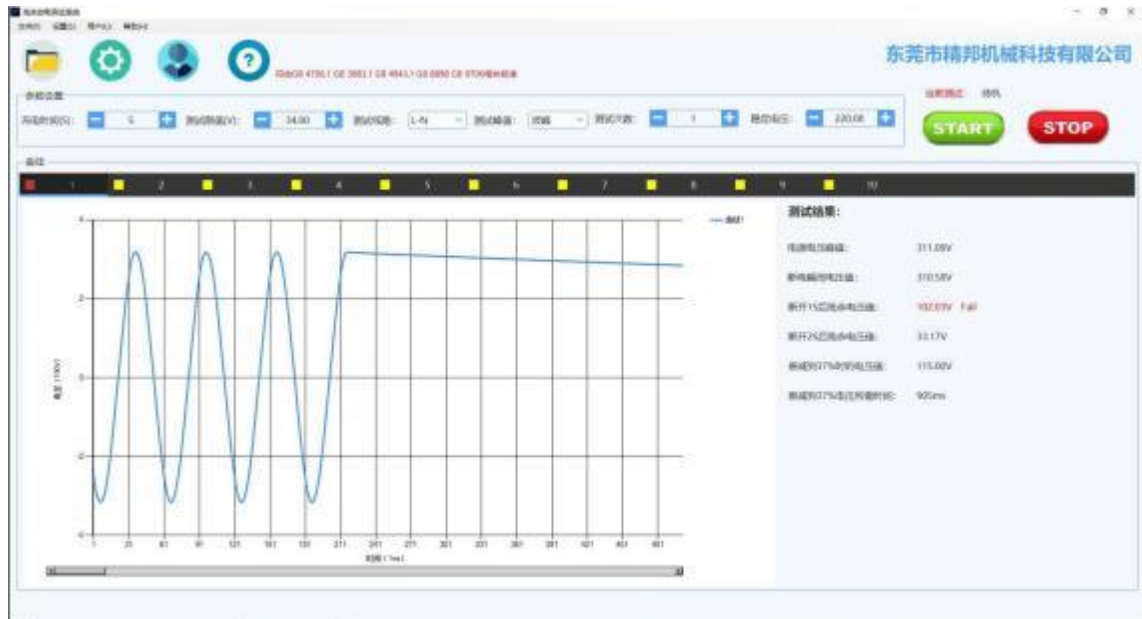
calculate

d value:

$$v_c(t) = V_0 e^{-t/\tau}$$

$\tau = RC$	
R(M)	9.30
C(uF)	0.097
t (s)	1
τ (s)	0.902
V ₀ (s)	220
V _c (V)	72.61
V _{peak} (V)	102.69

Actual test value:



sample

2:

Theoretic

al

calculate

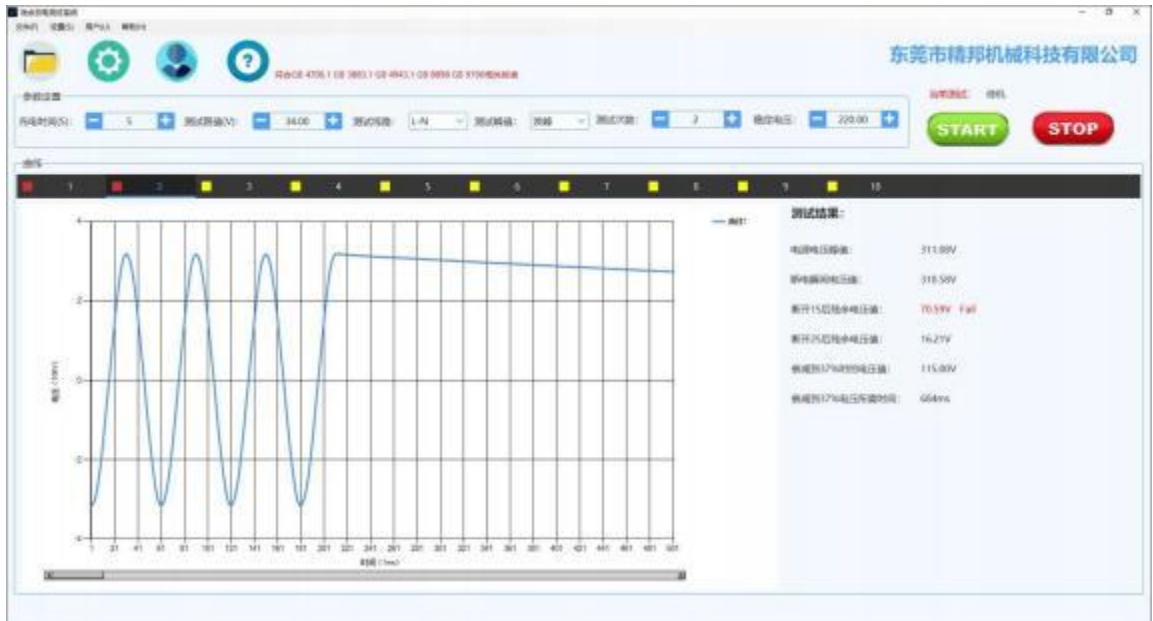
d value:

$$v_C(t) = V_0 e^{-t/\tau}$$

$$\tau = RC$$

R(M)	6.90
C(uF)	0.097
t (s)	1
τ (s)	0.669
V_0 (s)	220
V_C (V)	49.38
V_{peak} (V)	69.83

Actual test value:



sample

3:

Theoretic

al

calculate

d value:

$$v_c(t) = V_0 e^{-t/\tau}$$

$$\tau = RC$$

R(M)	5.32
C(uF)	0.097
t (s)	1
τ (s)	0.516
V_0 (s)	220
V_c (V)	31.68
V_{peak} (V)	44.81

Actual test value:

