HZSP Routine Induce Dielectric (Insulation) Tester

USER MANUAL

Huazheng Electric Manufacturing(Baoding) Co.,Ltd

Contents

I. Basic Principles

According to national standard "GB311-64" and the original water and electricity department issued "regulations of the preventive test electrical equipment, to meet the power system of high voltage transformer, frequency doubling induced overvoltage withstand test equipment requirements and design, it is widely used in power system, 35-220 kv voltage transformer ac withstand voltage test of grade, with main longitudinal assessment of transformer insulation strength, at the same time can also be induced overvoltage withstand test was carried out on the motor and transformer winding, also to make a short run of 150 hz power supply.

The three-frequency power generation device utilizes the saturation characteristic of magnetic circuit to take out the three-time harmonic voltage with the largest component in the harmonic. As the power source of the generator, it conducts the turn-to-turn, segment to layer frequency and voltage doubling test on the induction coil type electrical products.To examine the coil insulation strength, pressure resistance level.

II. Product Organization

It is composed of three-phase five-column transformer (or three single-phase transformers), single-phase voltage regulator, reactor and control part.According to the user requirements, the shape can be integral type, can also be split type.

III.Main Function

1. It is widely used in voltage transformers for frequency doubling induction voltage withstand test.

2. Conduct the voltage withstand test of the power transformer with split-phase frequency induction.

3. Perform frequency doubling induction voltage test on other induction coil type electrical products.

IV.Technical Parameters

1.Input voltage: three-phase 380V 50HZ

2.Output voltage: single-phase 300V, 500V, 800V, 1000V single-phase 150HZ

(external booster transformer is required if higher voltage is required)

3.Output capacity: 20% of product capacity

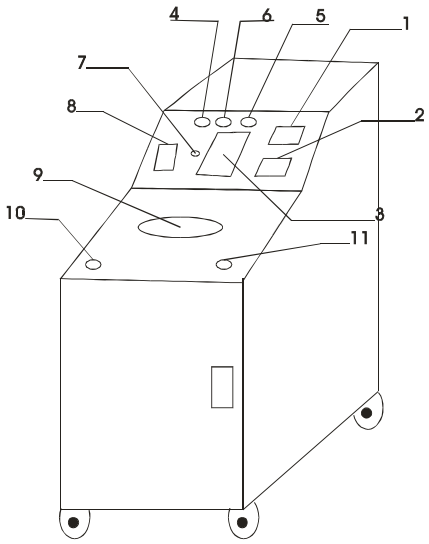
4.Harmonic distortion: < 5%-8%

5.No load running time: less than 5 minutes

6.Duration under rated voltage: 40 seconds

V.Instruction

1) Outline



1 output voltmeter

2 output ammeter

3 current relay

4 power indicator light (green)

5 work indicator light (red)

6 alarm indicator light

7 timing switch

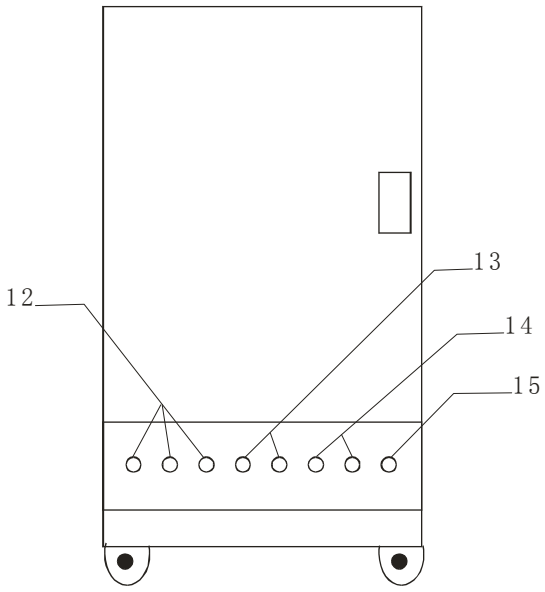
8 time relay

9 voltage regulator handle

10 start button (green)

11 stop button (red)

2) Background



12 input power:three-phase 380V (A,B,C)
Output voltage a,x(0-v)
14. Compensation reactor
15 grounding

3) Operating procedures

1.No-load test

Connect the three-phase 380V power supply directly to the "A, B, C" input terminal on the back of the device.Close the switch on the right side, turn the voltage regulator counterclockwise to zero, and the power indicator (green light) is on.Press the green button, the contactor is closed and the work indicator (red light) is on.

Rotate the regulator handle evenly clockwise and watch the output voltmeter closely. When the voltage is raised to the required voltage value, turn on the timing switch (the time relay is set to 40 seconds according to the test requirements) and start the timing.

When the test time reaches 40 seconds, the clock will alarm, and then the voltage regulator handle shall be turned counterclockwise to zero immediately.Press the red stop button, the contactor is cut off, the working indicator is off, the green signal is on, the power switch on the right side is cut off, and the no-load test is completed.

2.Load test

The three-phase 380V power supply is directly connected to the input terminals (A, B, C) on the back of the device, and the two ends of the tested products are respectively connected to the output terminals (A, x).And connect the ground wire;

Switch on the power supply and return the voltage regulator handle to zero, and the power indicator (green light) is on;Press the green button, the contactor is closed and the work indicator (red light) is on.

Turn the voltage regulator handle evenly clockwise and watch the output voltmeter and the output ammeter. When the voltage is raised to the required voltage value, turn on the timing switch (the time relay is set at 40 seconds according to the test requirements) and start the pressure-resistant timing.

When 40 seconds arrive, time alarm and reverse turn the regulator handle to zero.Press the red stop button, the contactor is cut off, the working indicator is off, the green signal light is on, cut off the main switch on the right side, and the load test is over.

VI.Matters Needing Attention In The Test

1.The device is provided with over-current protection, which is set at 80% of the rated output current at the time of delivery.When the over-current or breakdown phenomenon occurs during the pressure boost process, the over-current protection action can protect the tested product and not cause the accident expansion of the tested product. At this time, the three-phase power supply should be cut off to avoid damage to the device.

2.In the test process, if the power capacity of the tested product is not large, the compensation reactor generally does not need to access the circuit.If the capacitor current of the tested product is too large, the two ends of the compensation reactor should be parallel with the two ends of the tested product (or another winding) for current compensation, so as to improve the power factor of the entire test circuit and reduce the output current.

3.The triplex generator is operated under the condition of oversaturation, so the time to connect the three-phase circuit should be as short as possible, generally no more than five minutes.When the test subject is tested, the test time shall not exceed 40 seconds when the test frequency is 150Hz.

4.The reactor equipped with the tripling frequency generating device is only allowed to be used when testing the voltage transformer. When the voltage of the tested product

exceeds a certain range, the reactor should be additionally selected (it can be explained when ordering).

VII. Conditions Of Use

1.Altitude: no more than 1000 meters;

2.Ambient temperature: - 10 ℃ to + 40 ℃;

3.Relative humidity: < 95%;

4.Use place: no steam, corrosive gas and flammable and explosive medium.

VIII. Product Completeness

1. One set of triplex power generation device

2. Complete 1 set of connecting wires

3. One delivery test report

4. 1 product manual

5. One copy of product qualification certificate/warranty card