#### Dear Client,

Thank you for Purchasing our HTKGG-H Switchgear Test Equipment. Please read the manual in detail prior to first use, which will help you operate the equipment skillfully.

Our aim is to continually improve and perfect the company's products, so there may be slight differences between your purchase equipment and its instruction manual. You can find the changes in the appendix. Sorry for the inconvenience. If you have further questions, welcome to contact with our service



department.

The input/output terminals and the test column may bring voltage, when you plug in/pull out test line or power outlet, they will cause electric spark. PLEASE CAUTION RISK OF ELECTRIC SHOCK! To avoid

risk of electric shock, be sure to follow the operating instructions!

# **Company Address:**

- ♦ T4, No. 1, High-tech 2 Road, East Lake High-tech Development Zone, Wuhan
- ◆ Sales Hotline: 86-27- 87492243
- ◆ After Service Hotline: 86-27- 87459656
- ◆ Fax: 86-27-87803129
- ◆ E-mail: whhuatian@gmail.com
- ♦ Website: www.whhuatian.com

#### **♦ SERIOUS COMMITMENT**

All products of our company carry one year limited warranty from the date of shipment. If any such product proves defective during this warranty period we will maintain it for free. Meanwhile we implement lifetime service. Except otherwise agreed by contract.

#### **♦ SAFETY REQUIREMENTS**

Please read the following safety precautions carefully to avoid personal injury and to prevent the product or any other attached products being damaged. In order to avoid possible danger, this product can only be used within the scope of the provision.

Only qualified technician can carry out maintenance or repair work.

## --To avoid fire hazard or personal injury:

# **Use Proper Power Cord**

Only use the power wire supplied by the product or meet the specifications of this product.

# **Connect and Disconnect Correctly**

When the test wire is connected to the charged terminal, please do not connect or disconnect the test wire at will.

# Grounding

The product is grounded through the power cord; besides, the ground pole of the shell must be grounded. To prevent electric shock, the grounding conductor must be connected to earth ground.

Before making connections to the input or output terminals of the product, please do check that the product is properly grounded.

#### Pay Attention to the Ratings of All Terminals

To prevent the fire hazard or electric shock, please be care of all ratings and labels/marks of this product. Before connecting, please read the instruction manual to acquire information about the ratings.

# **Do Not Operate without Covers**

Do not operate this product when covers or panels removed.

# **Use Proper Fuse**

Only use the fuse with type and rating specified for the product.

# **Avoid Touching Bare Wire and Charged Conductor**

Do not touch the bare connection points and parts of energized equipment.

# **Do Not Operate with Suspicious Faults**

If you encounter operating faults/suspect there is damage to this product, do not continue. Please contact with our maintenance staff.

Do Not Operate in Wet/Damp Conditions.

Do Not Operate in Explosive Atmospheres.

# **Ensure Product Surfaces Clean and Dry**

# **—Security Terms**

Warning: indicates that death or severe personal injury may result if proper precautions are not taken

Caution: indicates that property damage may result if proper precautions are not taken.

# **Contents**

I. Overview	6
II. Technical Specifications	6
III. Schematic Circuit Diagram  IV. Function Introduction	
VI. KGG-300A switch on power supply, external power supply	
(optional according to user requirements)	9
VII. Instructions	. 10

#### I. Overview

HTKGG-H Switchgear Test Equipment is provided for manufacturers to do different energizing tests of HV/LV Switchgear before delivery. It can supply a variety of AC and DC power supplies, which is convenient to measure the switchgear and improve work efficiency.

# **II. Technical Specifications**

- 1. Input power: three-phase four-wire AC380V
- 2. Output voltage and current:

Three-phase AC100V output (fixed value) 1 group

Three-phase AC 0~10A output (<100V, adjustable value) 1 group

3. AC voltage output

AC 0~430V, 220V, current less than 10A

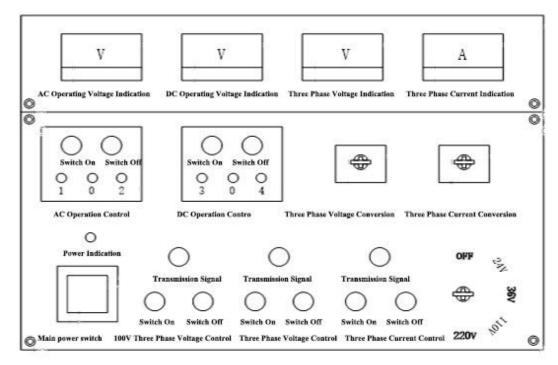
- 4. DC operating voltage output: DC 0~260V
- 5. Single-phase AC220V output (fixed value, socket) 2 groups
- 6. Three-phase AC380V output (fixed value, terminal) 1 group
- 7. Single phase fixed DC voltage 24V, 36V, 110V, 220V output
- 8. DC switch on power supply output: DC 0-300V (rated current 100A, short-time working current 300A) 1 group
  - 9. Dimension: 560 × 520 × 850mm

10. Weight: 75kg

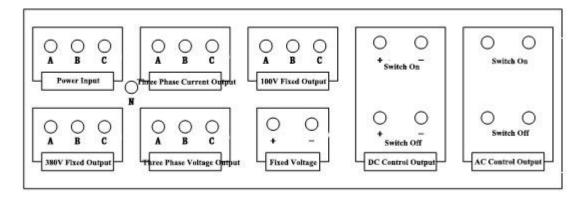
6

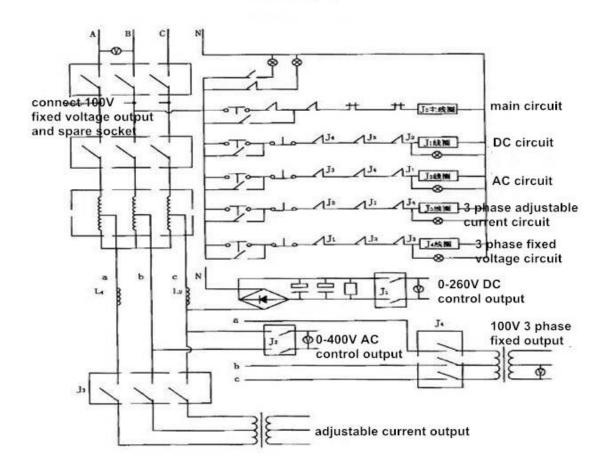
# III. Schematic Circuit Diagram

#### Front Panel



#### **Back Panel**





#### IV. Function Introduction

1. Output line terminal serial connect 10A, 16A air switch as a short-circuit protection. Items 3, 4 of technical specifications are controlled by independent contractor and output terminal, and these items can simultaneously switch on and not interlock. Users please note the use requirement.

The best way is that only using 1 group power output to work.

- 2. Items 6-7 technical specifications are not controlled by contactor. As long as main power switch is closed, the instrument can do single-phase AC220V output (fixed value) and three-phase AC380V output (fixed value).
- 3. DC switch on power supply output DC 0 -300V (large capacity) is an independent unit, be freed from the main cabinet, used alone; you can also use merge with the main cabinet, directly from the output terminal 300V DC output.

4. Three-phase switch K1, three-phase AC380V voltmeter.

# V. Operating Instruction

Take single-phase AC voltage voltmeter as an example:

- 1. Connect AC380V power supply.
- 2. Check whether the wiring connected power switch is well.
- 3. Make voltage regulator return to zero and press "closing" button.
- 4. On the panel press the "closing" button of AC operation voltage.
- 5. Slowly adjust output adjustment knob to boost voltage to the desired value, and observe voltmeter.
- 6. Completed test, on the panel press "opening" button of AC operation voltage, then press main "opening" button. Finally disconnect main power switch.

# VI. KGG-300A switch on power supply, external power supply (optional according to user requirements)

The power supply is composed of full control three-phase rectifier module, phase-shifting trigger circuit, automatic regulation circuit and absorption circuit.

The transistor intelligent control module integrates complex automatic regulation circuit, thyristor and trigger circuit into one. By adjusting the size of control signal voltage, the size of thyristor conduction angle is changed, so as to realize the function of power supply regulation and automatic control.

The trigger circuit system, thyristor and heat conduction bottom plate are insulated and isolated from each other, and the dielectric strength is greater than 2500 V, so it is safe and convenient to use. There is no phase sequence

limitation at the input of three-phase rectifier module. It can be applied to resistive and inductive loads

#### **VII. Instructions**

- 1. Connect three-phase four-wire AC380V.
- 2. Connect output DC300V to the load.
- 3. Counterclockwise rotate the output adjustment knob to zero.
- 4. Check whether the wiring is correct.
- 5. Close power switch.
- 6. Slowly adjust output adjustment knob, boost voltage to the desired value.
- 7. Completed test, counterclockwise rotate the output adjustment knob to zero, and then disconnect the power switch, wait for finishing discharge, you can remove the test lead.