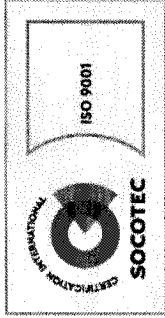


# ЛОКАТОР-К ООД

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Образец

## ИНДИКАТИВНО ПРЕДЛОЖЕНИЕ ПО ПАЗАРНА КОНСУЛТАЦИЯ № 45343

с предмет "Доставка на апаратура за изпитване на изолацията с високо променливо напрежение"

от

**ЛОКАТОР-К ООД**, ЕИК: 121462406/ ИН по ЗДДС: BG121462406, адрес: гр. София, ж.к. Гоце Делчев, бл. 258, вх. А, ет. 1,  
телефон: 02/962-18-81; 0888-64-11-68, e-mail: sales@lokatork.com, лице за контакт: Красимир ДАКОВ, длъжност: управител

№ по ред	Описание и технически характеристики на Възложителя	Описание и технически характеристики на предлаганото изделие	М. Ед.	К-во	Ед. цена в ЛВ без ДДС	Стойност в ЛВ без ДДС
1	Апаратура за изпитване на изолацията с високо променливо напрежение. Изходяща мощност min. 20kW, Изходящо напрежение min. 10kV. Точност на измерване на тока и напрежението $\pm 1.5\%$ Разделителна способност на измерване на U-0.01 kV и I – 0.01mA, цикъл на работа 1 hr ON / 1 hr OFF	Апаратура за изпитване на изолацията с високо, променливо напрежение, <b>модел YDJ-20KVA/10KV</b>  Изходяща мощност min. 20kW, Изходящо напрежение min. 10kV. Точност на измерване на тока и напрежението $\pm 1.5\%$ Разделителна способност на измерване на U-0.01 kV и I – 0.01mA, цикъл на работа 1 hr ON / 1 hr OFF  По подробни технически характеристики може да видите от приложената инструкция за експлоатация на английски език	Бр.	1	9 880,00	9 880,00
<b>Обща стойност в лева без ДДС (девет хиляди осемстотин и осемдесет лева)</b>						<b>9 880,00</b>

Срок на доставка: до 3 месеца по море, след получаване на писмена поръчка

Условие на доставка: DDP АЕЦ Козлодуй, съгласно INCOTERMS 2010

Гаранционен срок: 12 месеца

Производител: WUHAN HUAYING ELECTRIC POWER TECH&SCIENCE CO.,LTD - Китай

Съпроводителна документация при доставка: инструкция за експлоатация в оригинал, декларация за съответствие

**ПРИЛОЖЕНИЯ КЪМ ИНДИКАТИВНО ПРЕДЛОЖЕНИЕ:**

Инструкция за експлоатация на английски език на YDJ-20KVA/10KV

CE – Декларация за съответствие от производителя

София: 03.09.202019 г.

ПОДПИС И ПЕЧАТ:...

Красимир Да  
Управител на

Заличаването е на  
основание ЗЗЛД

## EC-DECLARATION OF CONFORMITY

**MANUFACTURER: WUHAN HUAYING ELECTRIC POWER TECH&SCIENCE CO.,LTD**

**ADDRESS:4F, Building 7, Optical Valley International Headquarters Industrial Park, No.62, Optical Valley Road, Wuhan, China.**

### Declaration

We hereby declare that the following testing instruments comply with all the essential health and safety requirements of the EC directive.

Technical specifications: Suitable for high voltage withstand test, it's the electrical insulation strength tester, dielectric strength tester, etc.

Model & Name of products: AC Hipot Tester YDJ-20KVA/10KV

EC Directives and related standards:

EN61326-1:2013    EN61010-1:2010

We certify that the technical file has been made in compliance the European directive EMC 2014/30/EU (EMC Directive) and LVD 2014/35/EU(Low-voltage Directive).

WUHAN HUAYING ELECTRIC POWER TECH&SCIENCE CO.,LTD

President: (signature)

Заличаването е на  
основание ЗЗЛД

# HIPOT TESTER

## 1 Warning

This manual will help users to operate HIPOT tester properly. The main contents of this manual include technical index, operation, test connection and potential risks of tester. Please read this manual carefully before you start to use HIPOT Tester. It will cut down the risks in test procedure.

The operation of HIPOT tester should follow associated international standards constraints. This manual cannot replace international standards of electrical tests. The operator should have the certificate of high voltage electrical test because the output voltage of HIPOT tester is very high.

Safety regulations for HIPOT tester application

- 1) Connect Safety earth grounding for HIPOT tester and specimen before testing
- 2) Discharge for specimen object before making connection
- 3) Turn off power supply of HIPOT tester when making connection
- 4) Discharge for specimen and HIPOT tester with discharge stick before disconnection
- 5) All indications should be in work condition before test
- 6) Watch all the indications carefully when testing
- 7) All parameters should not more than the rated value in test application
- 8) Please follow associated international standards in a special application.

## 2 Applications

HIPOT Tester is applied in power system for insulation test of high voltage equipment. The typical application of the HIPOT tester is as follow:

- 1) Power Transformer AC high voltage withstand test
- 2) Circuit Breaker AC high voltage withstand test
- 3) High voltage motors high voltage withstand test
- 4) Voltage/current transformer high voltage withstand test
- 5) High voltage power source for calibration of high voltage meter

### 3 Technique Index

The capacity and output voltage of HIPOT tester could be customized. Maximum voltage output and output capacity value parameters will be listed in the nameplate. Please refer the nameplate for details. For the customized YDJ-20KVA/10KV AC hipot tester, the parameters are as follow:

- 1) Power supply AC220V $\pm$ 10%. Detail value will be listed in the nameplate. Please connect correct power supply according to the nameplate
- 2) Rated frequency: 50Hz/60Hz
- 3) Maximum output voltage: 10KV and output capacity:20KVA
- 4) High voltage Measurement Accuracy:  $\pm$ 1.5%,display resolution 0.01 kV
- 5) Current Measurement Accuracy:  $\pm$ 1.5%, display resolution 0.01 mA
- 6) Working cycle:1 hour ON/1hour OFF

Table 1 Parameters for AC voltage booster (YDJ models)

Model	Maximum output capacity (KVA)	Maximum high voltage output (KV)	Maximum current in high voltage circuit (mA)	Voltage and current input of voltage booster		Ratio	Temperature(°C) raised/ 30 minute °C
				V	A		
YDJ -20/10	20	10	2000	220	90.9	500	10

The detail model name is constructed by YDJ-maximum output capacity/maximum output voltage. For example YDJ-3KVA/50KV stands for AC HIPOT tester which has a maximum output capacity 3 KVA and the maximum output voltage is 50 KV.

## 4 System Diagram

The Tester is constructed by the voltage booster and main control unit. The Voltage booster is a high voltage transformer which can transfer the low voltage (typical 0~200V) to high voltage (from 0~50kv to 0~200kv). The control box is response for the voltage regulation, breakdown protection and voltage/current indications. Figure 1 is the oil type high voltage booster. Figure 2 is the control unit whose capacity is 20kv. Figure 3 is the control unit whose capacity is 10kva or more than 10KVA.

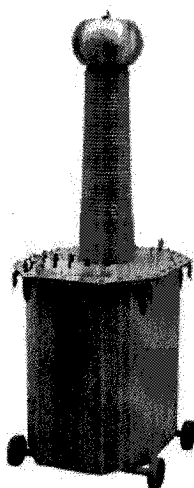


Figure 1 High Voltage Booster

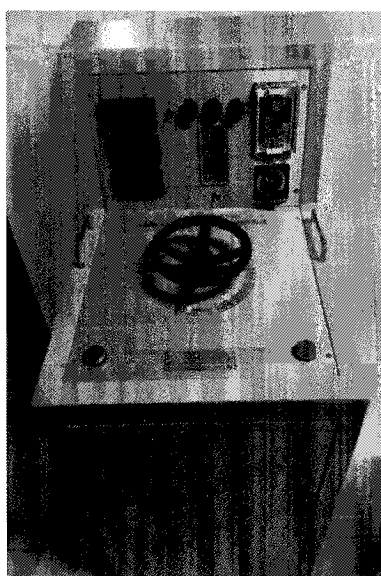


Figure 2 Control Unit 20KVA

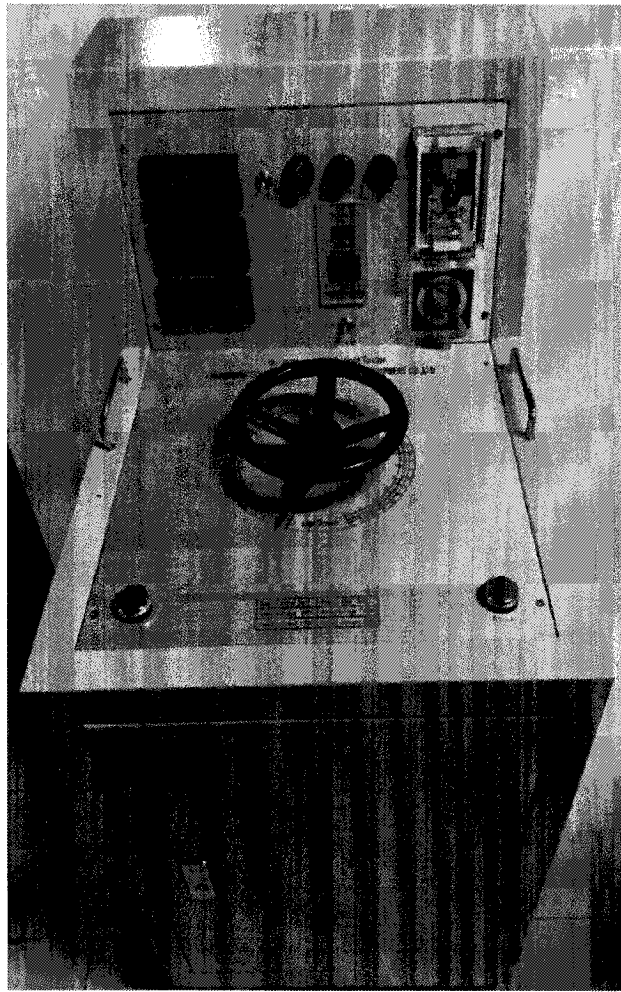


Figure 3 Control Unit 10KVA or more than 10KVA

AC HIPOT tester generates AC high voltage only. AC DC HIPOT tester can generate both AC high voltage and DC high voltage. The DC high voltage is generated from AC high voltage by a rectifier (High voltage silicon stack). The diagram of the voltage booster of AC HIPOT Tester is as figure 4. The diagram of voltage booster of AC/DC HIPOT Tester is as figure 5.

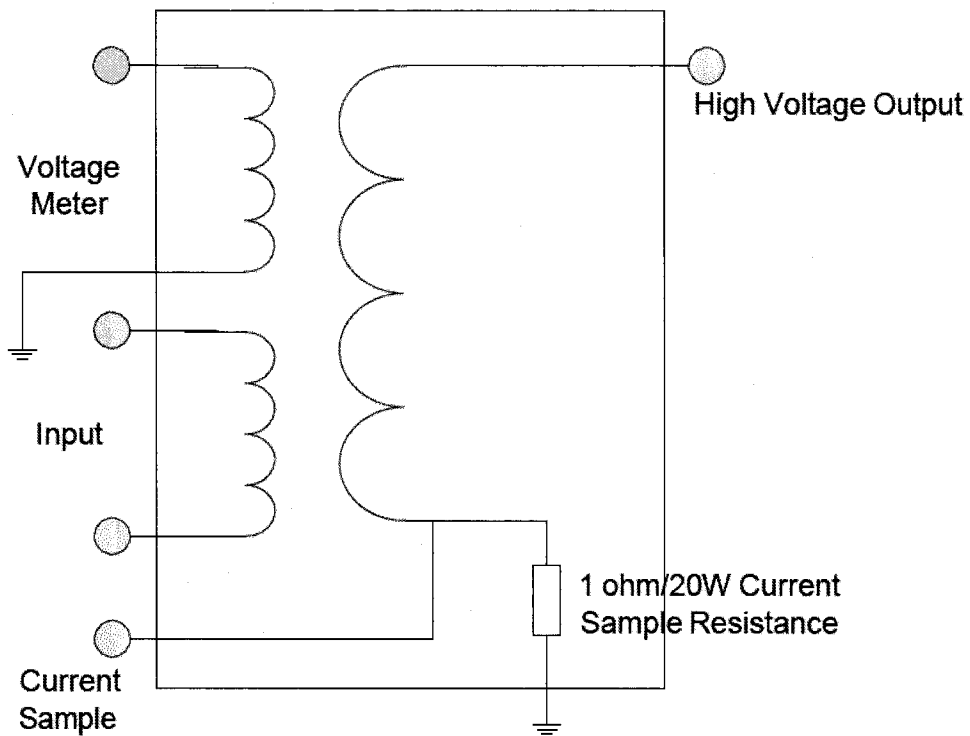


Figure 4 Diagram of voltage booster of AC HIPOT Tester

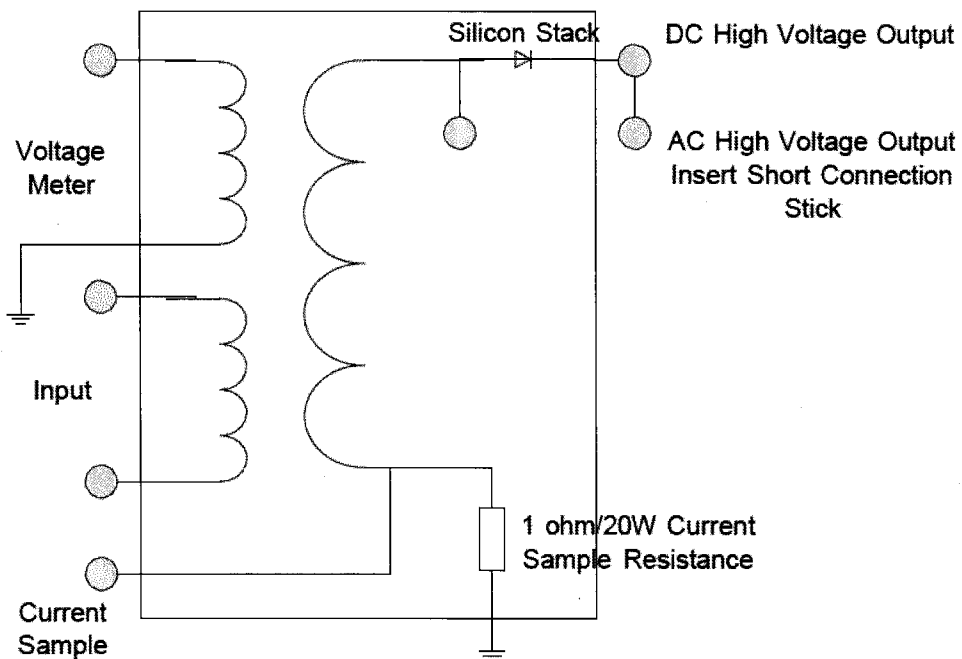


Figure 5 Diagram of voltage booster of AC/DC HIPOT Tester

The control unit is applied to adjust the voltage output. Figure 6 is the diagram of typical control unit. The MCB is the power supply protection unit. AC contactor is response for the power supply close and open control. Over current relay will be



operated when the current flowing in the low voltage circuit over the setup value in the relay. There three meter in the control unit one is the low voltage circuit current meter which is connected in the secondary of current transformer in low voltage circuit. The second is the high voltage meter which is applied to indicates the high voltage. The high voltage meter is connected to the instrument winding of voltage booster. The third is the high voltage circuit current meter which is parallel connected to the sample resistance in the low voltage side of high voltage circuit as figure 4.

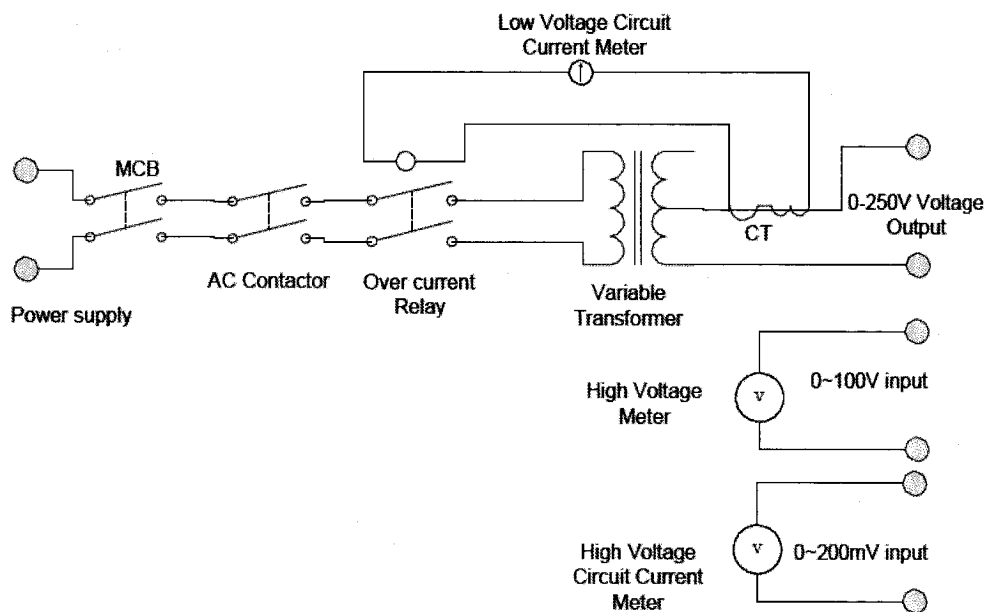


Figure 6 Diagram of Control units

## 5 Test Connection

The output voltage of HIPOT tester is very high. Please be sure that there is enough insulation distance between the high voltage circuit and operator. The separated units of HIPOT tester can make the operator far from the high voltage side when testing. Please be sure that all indications are in work condition when testing. Figure 7 is the typical test connection for HIPOT Tester.

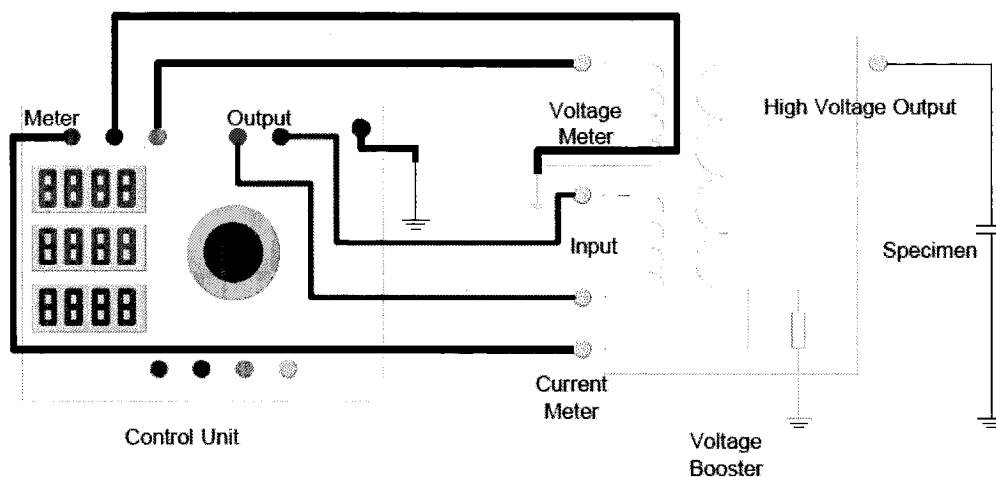


Figure 7 Typical Test Connection of HIPOT tester

## 5 Operations

The panel of control unit is as figure 8. All parts of the control unit had been listed in the panel. Please made connection according to the panel and reference connection.

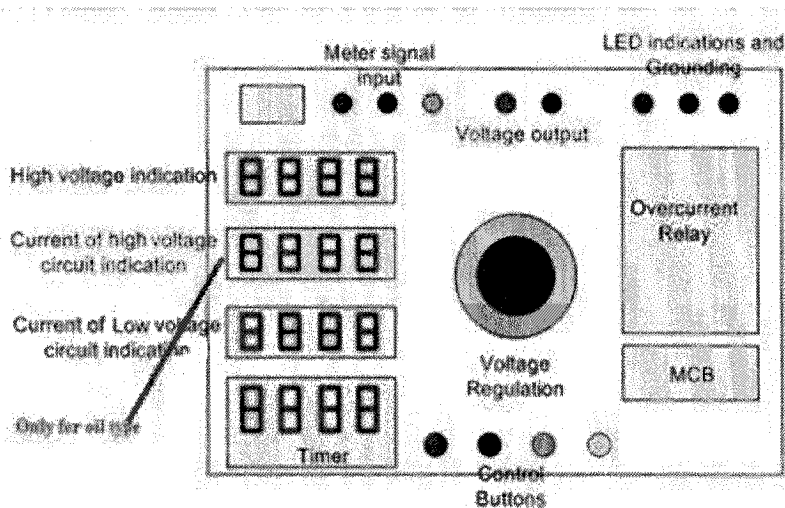


Figure 8 Panel of Control Unit

There are three meters installed in the panel. The functions of the three meter are as follow:

1 High voltage indication meter shows the high voltage value voltage booster in KV. It is energized by voltage from the meter signal input terminals

2 Current of low voltage circuit indication shows the current value of voltage output circuit in A. It is energized by the current transformer installed in the internal of control unit

3 Current of high voltage circuit indication shows the current in high voltage circuit of voltage booster in mA. It is energized by the sample voltage from the meter signal input terminals.

The control buttons in panel include emergency, close, open and timer. The functions of there buttons are as follow:

1 emergency is used to halt the output of control unit while keep the button locked. Operator should unlock the button to enable the output again.

2 Close is used to enable the output of control unit. The regulation should be in zero position when press down close button. Otherwise this button is invalid

3 Open is used to disenable the output of control unit.

4 Timer is used to start the timer

HIPOT tester is a high voltage test equipment. The operator should have certification of high voltage test which is required according to associated national standards. Warning instruction of the manual should be read carefully before use this equipment. The operation should follow procedure when testing.

1) Please make earth grounding connection for specimen object, voltage booster and main control unit first

2) Please discharge the specimen object with discharge stick before making connection

3) Please make connection for tester and specimen object according to figure 7

4) Make power connection for main control unit while keep all switch in OFF position

5) Confirm the high voltage value in withstand test

6) Set the protection value of current by the pointer on the over current protection relay panel

7) Adjust the regulator to zero position and then press down the close button on the panel the tester with enable the voltage output.

8) If the regulator is not at zero position when you press down the close button the high voltage output would not be enabled. There is a zero position indication lighter on the panel of the main control box

9) Adjust the high voltage output to the withstand test value step by step. Read the high voltage value ,LV current and high voltage circuit current from meters at the same time

10) Please stop output immediately if there is any indication is unreasonable

11) Start the timer by the timer switcher on the main control unit panel when voltage has rise to the test value.

12) If the current over the value set on the panel of the over current relay the tester would cut off the power supply of HV transformer immediately. It is said the test result is failure.

13) If the timer display value reach the set value the tester would have a sound alarm to inform operator that the withstand time is ok. If the tester has not start the over current protection unit before sound alarm it is said the test result is ok.

14) Open the power supply of HV transformer by press down the “open” button on the panel of the main control box when test is end

15) Please discharge the high voltage circuit of specimen equipment before remove off the cable connection of high voltage circuit

16) Please do not start the test if some of the HIPOT tester is not in work condition

## 6 Configuration

The standard configuration of HIPOT tester is as table2:

Item	Quantity	Memo
Control unit	1unit	
Voltage booster	1unit	
Meter cable	1set	
Voltage booster supply cable	1set	
Power supply cable	1unit	
Grounding Cable	1unit	
Manual	1unit	

## 7 Order Information

The HIPOT tester has some optional accessory for selection. Those accessories should be declared and paid before order. The optional accessory for HIPOT tester is as follow:

### 1 Discharge stick

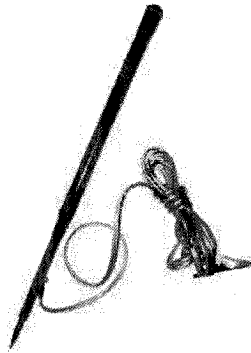


Figure 9 Discharge Stick

Applied to discharge the specimen before test and after test

### 2 Carry trolley

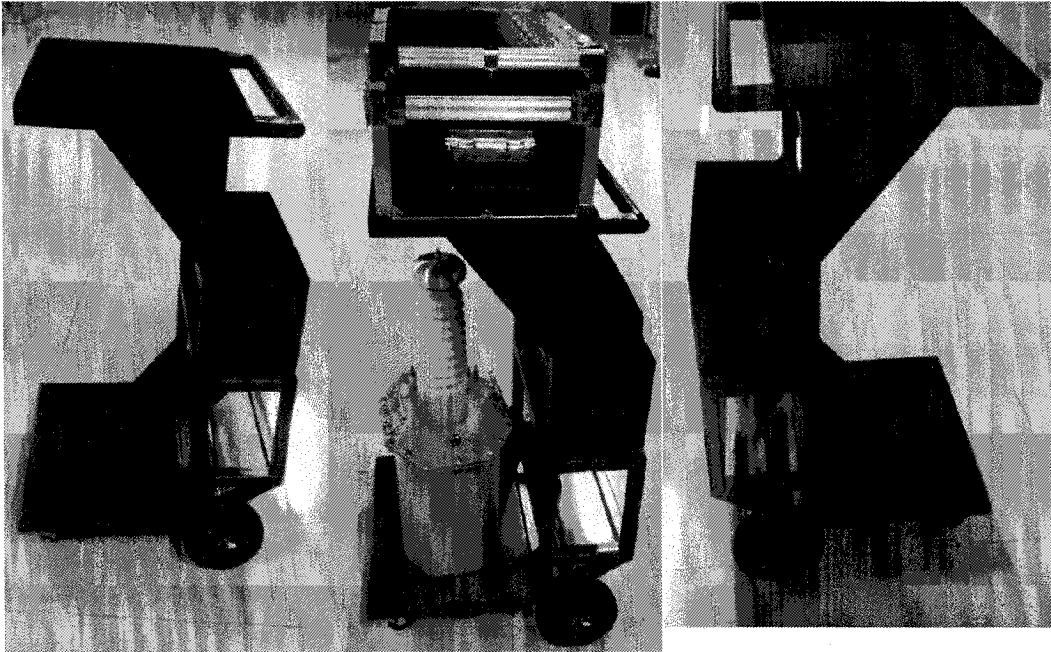


Figure 10 Carry Trolley

Trolley is customized according to the size of control unit and voltage booster. It is applied to transfer the control unit, voltage booster and accessories bag