

# PEGO GROUP (HK) COMPANY LIMITED

Professional on LED Test Equipment, Environment Test Apparatus, Safety Test Equipment, Lab Equipment, probe and lamp gauges





# **COMPANY FILE**

Website: www.pegotester.com

Pego Tester (Jiangxi) is founded by **PEGO GROUP** in 2011, a professional high-tech enterprise engaged in developing, marketing and service for electronic test equipment. At the moment, the company has five groups main products:LED test equipment, EMC and EMI test system, electric safety test equipment, environment test apparatus and test probe and gauges, includes integrating sphere and spectroradiometer test system for LED, goniophotometer, surge generator, ESD gun, high-low temperature chamber, oven, dust chamber, IP code test system, needle flame test chamber, tracking index test chamber, UL and IEC probes, "Go" and "Not Go" gauges, spring impact hammer and so on. Meanwhile, for the demands of site-testing, PEGO launches several portable equipment.

Providing better user experience with better quality and better price is the motto of Pego. With the growth of test items, PEGO hope to grow with our users, and search for better test solution for our users.

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# **CONTENTS**

### 1. Probes and Gauges

- 1.1 IEC61032 Probes for Verification
- 1.2 IEC60061-2 Lamp Cap and Holders "Go" and "Not Go" Gauges

### 2. Mechanical Equipment

- 2.1 IEC60335-2-9 figure 103 Aluminum Vessels for Testing Hotplates
- 2.2 IEC60335-2-9 figure 104 Carbon Steel Vessels for Testing Induction Hotplates
- 2.3 GB21456 Vessels for Household Induction Cookers
- 2.4 EN60350-2 Vessels for Cookware
- 2.5 Mandrel Tester Device
- 2.6 IEC60335-1 Inclined Plane Device

# 3. Environment Test Equipment

- 3.1 JY-SC Dust-proof Test Chamber
- 3.2 IPX1~IPX8 Waterproof Test Equipment
- 3.3 IPX3/IPX4 Portable Spray Nozzle
- 3.4 Salt Spray Test Chamber
- 3.5 Simulation Transport Vibrostand
- 3.6 Ball Pressure Test Apparatus
- 3.7 Industrial Oven
- 3.8 IK01-06 Spring Impact Hammer
- 3.9 IK07 Spring Impact Hammer
- 3.10 K07-IK10 Pendulum Impact Hammer
- 3.11 IK07-IK10 Vertical Impact Hammer
- 3.12 IK07-IK10 Striking Elements
- 3.13 Spring Hammer Calibration Device
- 3.14 IEC60068-2-27 Shock Test Equipment
- 3.15 High-low temperature and humidity chamber
- 3.16 Thermal Shock Chamber
- 3.17 Tensile Testing Equipment

### 4. Electric Safety Test Equipment

- 4.1 Tracking Index
- 4.2 Needle Flame Test Apparatus
- 4.3 Glow-Wire Test Apparatus
- 4.4 UL94 Horizontal and Vertical Flame Test Apparatus
- 4.5 Interior Material of Vehicle Horizontal Flammability Tester
- 4.6 Textile Vertical Flammability Test Apparatus
- 4.7 TMP-L Lamp Cap Temperature Rising Test System
- 4.8 TP-X Multiplex Temperature Logging Meter
- 4.9 Electric Safety Comprehensive Test System (6 in 1)



# **CONTENTS**

# 4. Electric Safety Test Equipment

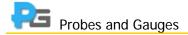
- 4.10 Ground Resistance Tester
- 4.11 DC Electronic Load
- 4.12 LCR Meter
- 4.13 AC/DC Withstand Tester
- 4.14 AC/DC Insulation Withstand Voltage Meter
- 4.15 Leakage Current Meter

# 5. Power Supply

- 5.1 AC Digital Power Meter
- 5.2 AC/DC Digital Power Meter (Interface model)
- 5.3 CC&CV DC Power Supply
- 5.4 IGBT/PWM AC Power Source
- 5.5 Voltage Regulator

# 6. EMC and EMI Test Equipment

- 6.1 EMI Test System
- 6.2 Voltage Dips and Short Interruption Generator
- 6.3 Surge Generator
- 6.4 Electrostatic Discharge Generator
- 6.5 EFT Immunity Measurement
- 6.6 Ring wave Generator



### **IEC61032 Probes for Verification**

### Introduction:

Probes are designed according to IEC61032 figure 7 and UL clauses. This probe may be used to verify the protection of persons against access to hazardous parts, and to verify the mechanical strength of openings in the enclosure or internal barriers.

- Parameter
- IP code test probes: probe A, probe B, probe C, probe D, probe1, probe2
- Other test probes: probe11, probe12, probe13, probe18, probe19, probe 31, probe 32, probe 41, probe 43
- UL test probes: S2140A UL test probe, PA140A UL test probe, PA130A UL test probe, PA160B UL test probe, PA100A UL test probe



# IEC60061-2 Lamp Cap and Holders "Go" and "Not Go" Gauges

### Introduction:

The lamp cap and holder gauges are designed according to IEC60061-3:2004, they are applied to quality test of E14 cap. The structure and waveform are calculated by PC to reach high precision and the appearance looks nice. The material is applied alloy steel. Al the products equip with third-lab certificate authorized by CNAS.

- Parameter
- E14

Figure numbers: 7006-27F-1, 7006-28B-1, 7006-55-2, 7006-54-2, 7006-27G-1, 7006-25-7,7006-26-4, 7006-30-2,7006-30A-1,7006-31-4

• F27

Figure numbers: 7006-27B-1,7006-28A-1,7006-27C-1,7006-50-1,7006-51A-2,7006-51-2

• E26

Figure numbers: 7006-27D-3, 7006-29L-4,7006-29A-2,7006-29-3,7006-29C-2,7006-29A-2

• E12

Figure numbers: 7006-27H-1,7006-28C-1,7006-27J-1,7006-32-1

• G13

Figure numbers:7006-45-4, 7006-44-4

B22D

Figure numbers: 7006-10-8,7006-11-8, 7006-4A-2, 7006-3-1, 7006-19-2,





# IEC60335-2-9 Figure 103 Aluminum vessels for testing hotplates

### ► Introduction

The vessels is designed according to IEC60335-2-9:2002 figure 103, and EN30-1-1:2008 figure C2, GB4706.14-2008 figure 103 and GB16410-2007 figure 7. The vessels are made of unpolished commercial quality aluminum, have flat bottom and covered with a lid. There are totally five vessels.



# IEC60335-2-9 Figure 104 Carbon Steel Vessels for testing induction hotplates

### Introduction

The carbon steel vessels are designed according to IEC60335-2-9:2002 figure 104, GB4706.14-2008 figure 10 and GB4706.22-2008 figure 102, they are applied to test the induction hotplates. The vessels are made of low carbon steel having a maximum carbon content of 0.08%, and the surface is sprayed with high temperature non-stick coating. There are totally five vessels.



### **GB21456 Vessels for Household Induction Cookers**

### Introduction

The vessels are designed according to GB21456-2008, it is applied to evaluate the energy efficiency and energy efficiency grades. The vessels and lids are made of Q235 having a maximum carbon content of 0.08%. There are totally 5 vessels.





### **EN60350-2 Vessels for Cookware**

### Introduction

The vessels are designed according to EN60350-2:2013, the wall of the vessel is made of 1.4301 stainless steel, the bottom of the vessel is made of 1.4016 stainless steel, and the lid is made of aluminum. There are totally 8 vessels.



### **Mandrel Tester Device**

### Introduction

Mandrel tester device is designed and manufactured in accordance with the standard requirements of IEC61558 and IEC60065. It is used for the insulating thin layer of the power transformer and supply unit as well as the similar products to do the spindle test, mechanical strength test and abrasion test.

This test device will have a mechanical limit in the position of 10° and 230° to make sure the accuracy of the testing angle. Thus, the operation method is simpler. The weights are with suspension loop to prevent the sample from damage due to the large stress.



### **IEC60335-1 Inclined Plane Device**

### Introduction

This device is designed and manufactured in accordance with the IEC60335-1 clause 20.1. The Stability Tester is to determine the stability of electric appliances which are used on a table or on the floor. The device consists of a surface and an angle adjusting device, with angles 0~15° adjustable.

The appliance is placed in any normal position of use on a plane inclined at an angle of 10° to the horizontal, the supply cord resting on the inclined plane in the most unfavourable position. However, if part of an appliance comes into contact with the horizontal supporting surface when the appliance is tilted through an angle of 10°, the appliance is placed on a horizontal support and tilted in the most unfavourable direction through an angle of 10°.



### **JY-SC Dustproof Test Chamber**

### ► Introduction:

Dustproof test chamber is designed according to the standards of GB/T10485-2007, GB2423.37-2006 test L, GB208-2008, IEC60529 (IP code), GB7001-1986 and etc. This equipment is mainly used in IP5X and IP6X testing about the leakproofness of the enclosure.

### > Features:

- Adopts LCD color display and touch screen. The PLC is made by Panasonic.
- The shell of the equipment adopts 3042B stainless steel.
- Sand and dust:Dry powder, portland cement paste and etc.
- $\bullet$  Temperature control: adopt RKCDC temperature controller, 5~60  $^{\circ}\mathrm{C}$  adjustable.
- Safety device: leakage protection, overheat protection



### IPX1~IPX8 Waterproof Test Equipment

### Introduction:

Waterproof test equipment are designed according to IEC60529-2001, they are applied to test the IP code regarding the second characteristics. The system is for classifying the waterproof degrees of protection provided by the enclosure of electrical equipment, like LED lamps, household appliance, communication device and etc.

• Drip Box (IPX1/IPX2): for IPX1 and IPX2 test. IPX1:1±0.5mm/min, IPX2: 3±0.5mm/min (1-3mm/min adjustable); Material: 304# steel (water tank), Panasonic speed regulator motor; Drop of aperture: ⊄ 0.4mm, pitch-row:20mm; test time: 0-999min (adjustable). Test area: 150mm\*800mm.



- •Spray nozzle (IPX3/IPX4): for IPX3 and IPX4 test. Swing pipe size: R600mm/R800mm/R1000mm; Material of pipe: SUS304 (OD:19mm, thickness: 2mm); Drop of aperture: ⊄0.4mm; spray nozzle angle: 1200 (IPX3), 1800(IPX4). rainfall capacity:0-10L/min (adjustable). Swing speed: 4s for IPX3, 12s for IPX4. Motor: made by Mitsubishi.
- 6.3mm/12.5mm nozzle (IPX5/IPX6) for IPX5 and IPX6 test. Aperture: 6.3mm (IPX5), 12.5mm (IPX6); rainfull capacity: 12.5±0.625L/min (IPX5), 100±5L/min; distance between nozzle and test product: 2.5-3m. 7 inch LCD touch screen. Sample rotation base: Ø700mm, speed: 1-5 rpm), height: 800-1300mm.
- Temporary immersion tank(IPX7): for IPX7 test.Dimension: 2000mm\*1000mm\*1500mm, height: 1650mm; water mark: 1000mm; material: 1.5mm 304# steel (inner), 201# steel (outer).
- Continuous immersion tank(IPX8): for IPX8 test. Diameter: 0.8m, height: 1m; pressure: 0-0.35MPa, accuracy: 0.25, range:0.6Mpa; test time: 0-99h; max pressure: 0.5Mpa. Depth: 1-30m; material: 304# steel; connect with water supply with 3/4 inch high pressure steel.

## IPX3/IPX4Portable Spray Nozzle

### ► Introduction:

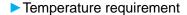
- Portable spray nozzle(IPX3/IPX4): for IPX3 and IPX4 test. Aperture:Ø0.5mm;numbers of aperture:121; diameter of the nozzle: Ø75.5mm; material: brass(nozzle), SUS304 steel (handle, spherical valve); pressure meter: 0-300Kpa; test time: 0-99min (adjustable); pressure: 150kPa
- Portable 6.3mm and 12.5mm nozzle (IPX5/IPX6): Aperture: \$\phi6.3mm(IPX5)\$, \$\phi12.5mm(IPX6)\$; water flow: 12.5\pmu0.626L/min (IPX5)\$, 100\pmu5L/min (IPX6)\$; test time: 0-99min; distance between nozzle and shell: 2.5-3m. Adjust the pressure by flowmeter.



# **Salt Spray Test Chamber**

### ► Introduction

Salt spray test chamber is applied to measure the reliability of the EUT against salt-spray corrosion. Salt spray chamber is to simulate the climate near the sea, there are two kinds of test according to different standards (JIS, ASTM, CNS, GB), neutral salt mist (NSS) and acidy salt spray test (CASS). This equipment can meet the requirements of the both.



- Lab:35~50°C (NSS@35°C, CASS@50°C)
- Air barrel: 47~63°C (NSS@47°C, CASS@63°C)



### **Simulation Transport Vibrostand**

### Introduction

Simulation transport vibrostand is applied to test the anti viberation ability in transit, and it is widely used in the industries of electronics, motor, lighting fixture, package, toy and etc. This equipment can do the low frequency vibration test, vibration resistance test and reliability test to evaluate the products' quality. Completely meet the requirements of IEC60068-2-6.



Vibration table: 1100\*1200mmVibration mode: back and forth

Load capacity: 100KGAmplitude: 25.4mm

• Oscillation: sine-wave, half-sine-wave

• Time: 0~99H99M99S



# **Ball Pressure Test Apparatus**

### ► Introduction:

The ball pressure test apparatus is designed according to IEC60695-10-2, IEC60335, IEC60601, GB4706.1 and etc. the surface of the part to be tested is placed in the horizontal position and a steel ball of 5 mm diameter is pressed against the surface with a force of 20 N. The test is performed in a heating cabinet at a temperature of 75°C  $\pm$  2°C. The ball is withdrawn after 1 h and the diameter of the impression made by the ball is measured. An impression greater than 2 mm in diameter constitutes a failure.



### **Industrial Oven**

### ► Introduction:

Oven is widely applied to the fields of motor, glass, ceramic, PC board, coating and etc. for the purpose of drying, preheat and finalize the design. Work with the ball pressure test apparatus can do the heating resistance test.



Temperature range: RT~220°C

Temperature fluctuation: ±1 °C (no load)

Temperature uniformity:≤2°C (no load)

Temperature departure:±2℃ (no load)

Ambient temperature: 5~40°C, humidity: ≤85%RH



### **IK01-06 Spring Impact Hammer**

# Introduction:

IK ratings are defined as IKXX, XX is a number from 00 to 10 which indicates the degrees of protection provided by enclosures against external mechanical impacts. The different IK rating relate to the ability of an enclosure to resist impact energy levels measured in joules (J). It is designed according to IEC60068-2-75 Ehb, and can applicate to IEC60598, IEC60068-2-75 and etc.

IK01-06 impact spring hammer includes 6 levels from IK01 to IK06, the user can adjust it accordingly. And we can accept customized for each impact energy.



### Degrees of protection against external mechanical impacts

IK01	IK02	IK03	IK04	IK05	IK06	IK07	IK08	IK09	IK10
0.14J	0.2J	0.35J	0.5J	0.7J	1J	2J	5J	10J	20J

# IK 07 2J Spring Impact Hammer

### Introduction

Designed according to IEC60068-2-75, GB/T2423.55-2006, GB4706.1, GB8898, GB7000, IEC884 and UL1244. IK ratings are defined as IKXX, XX is a number from 00 to 10 which indicates the degrees of protection provided by enclosures against external mechanical impacts. The different IK rating relate to the ability of an enclosure to resist impact energy levels measured in joules (J).



Parameter

• Impact energy: 2.00J±0.08J

Length: 211mmWeight: 1250g

Hammer weight: 60gRadius of hammer: 10mm

### **IK07-IK10 Pendulum Impact Hammer**

### ► Introduction:

This device is designed according to IEC60068-2-75-1997 and IEC62262, and can meet the test requirements of IEC60598, EN50102, GB2423.55-2006, GB20138-2006 and etc. It is apply to sheet metal for mechanical impact testing. The device can be adjusted back and forward, left and right, and the angle also can be adjusted.



### Fall Height

Impact energy/J	0.2	5	10	20	50
Equivalent mass/kg	0.5	1.7	5	5	10
Fall height±1%/mm	400	300	200	400	500

# **IK07-IK10 Vertical Impact Hammer**

### Introduction

VH-1 IK07-IK10 vertical impact hammer is designed according to IEC-60068-2-75 Test Ehc.

Parameter

Travel height: 0-1000mmHammer: 2J, 5J, 10J, 20J, 50J

Guideway: Φ35\*300mmRelease mode: manual

Height of fall



# **IK07-IK10 Striking Elements**

### Introduction

IK07-IK10 striking elements are designed according to IEC60068-2-75 figure A.2, figure A.3, figure A.4, figure A.5, figure A.6. A striking elements falls freely from rest through a vertical height, the impact energy will be generated accordingly.



### Model

Model (energy)	2J	5J	10J	20J	50J
Equivalent mass/kg	0.5	1.7	5	5	10
Height of fall±1%/mm	400	300	200	400	500
Diameter(mm)	35	60	80	100	125

• Material: stainless iron



# **Spring Hammer Calibration Device**

### Introduction:

Spring hammer calibration device is specially for lab to calibrate the spring hammer, it is designed according to IEC60065-2-75-1997, it is mainly apply to third part lab, the National immigration department and appliance-related research institutes.

Parameter:

Accuracy: 0.01J, Repeatability:±0.01J

Impact energy range: 0J ~2JGuide groove diameter:51mm

Energy loss: <0.002J</li>Trigger travel: >30mm

• Number of calibration weights: 1



# IEC60068-2-27 Shock Test Equipment

### Introduction

The equipment is applied to do the shock test for small specimen, like electronic components and PCB. It is designed according to IEC60068-2-27 Ea: shock and MIF-STD202F.

### Specification

- Max load: 3KG or customized
- Dimension of testing jig: 200mm\*250mm or customized
- peak acceleration range: half-sine wave, 150~20000m/s² or customized
- Duration of the pulse: half-sine wave, 1~20ms or customized
- Waveform: half-sine wave
- Waveform tolerance
- a) Duration≤3ms, the tolerance of peak acceleration is ±20%, the tolerance of duration of pulse is ±15%.
- b) Duration>3ms, the waveform tolerance is within the standard requirement.
- Velocity change tolerance: ±15%
- Dimension of testbed: 1000mm\*750mm\*2400mm

### **High-Low Temperature and Humidity Chamber**

### ► Introduction

High-low temperature and humidity chamber is a kind of environment test chamber, designed according to IEC60068-2-1, IEC60068-2-2 and IEC60068-2-3. It can accurately simulate the conditions of low temperature, high temperature, low temperature & humidity and high temperature & humidity. It is applied to the industries of electronic, battery, plastic, food, paper, car, LED lamps and so on. The chamber adopts TEMI300 temperature controller and LCD display, temperature and humidity can be controlled simultaneously.

### Parameter

- Humidity range:20%~98% R.H.
- Temperature range: 0~+150°C -20°C~+150°C -40°C~+150°C -60°C~+150°C (optional)
- Accuracy: Temperature: ±0.01 °C; humidity: ±0.1% R.H.
- Fluctuation/Evenness:±0.5℃/±2℃
- Temperature rise speed:2℃-4℃/min
- Temperature down speed:0.7°C-1°C/min
- Humidity fluctuation:±2.0%R.H.





### **Thermal Shock Chamber**

### ► Introduction

Thermal shock chamber is completely meet the requirements of GB/T2423.1-2008 test A, GB/T2423.2-2008 test B, GB-T10592-2008, GJB150.3-198 and GJB360A-93 thermal shock test, and also the relative standards of IEC, MIL STD and DIN. It it a necessary test equipment for the industries of metal, plastic, rubber, electronics and so on to test the resistance under conditions of high temperature and low temperature. Thermal shock chamber helps to test chemical changes and physical injury cause by thermal expansion at the short time.



### ▶ Parameter

- High temperature range: +80  $^{\circ}$ C  $\sim$  +200  $^{\circ}$ C, Low temperature range: -10  $^{\circ}$ C  $\sim$  -60  $^{\circ}$ C
- ullet Temperature cyclic range: -40  $^{\circ}$ C  $^{\sim}$  +120  $^{\circ}$ C
- Accuracy: ±2℃
- Rising time at hot space: RT~150°C <40mins, Rising time at cold space: RT~-40°C < 50mins
- Recover time at test space (-40°C~+120°C): 3~5 mins
- Weight of EUT: 5kg above
- Construction: high temperature chamber, low temperature chamber, test chamber
- Power supply: 3 phase 5 wires (AC380V, 50HZ)

### **Tensile Testing Equipment**

### Introduction

Tensile testing equipment is widely applied to the industries of footwear, leather, rubber, cloth, textile, iron and etc. It can do the test of stretching, Compression, bend and shear. Meeting the requirements of GB, ISO7500/1, JJG7500/1, JJG475-88, ASTME4, DIN5122, JJSB7721/B7733, EN1002-2, BS1610, CNS9471/9470.

# Parameter

• Max test force: 2000KN, 600KN, 2KN (customized)

Accuracy: ±1%



## **Tracking Index**

- ➤ Parameter:
- It applied with rectangle size of platinum electrode, each electrode can force to the sample is 1.0±0.05N
- Electrode Distance: 4.0mm±0.01mm, included angle: 60°±5°
- Electrode Voltage: 100~600V, (48~60HZ) adjustable, when the short-circuit current at 1.0±0.1A, the voltage goes down less than 10%
- The liquid drop device can make the liquid height from 30~40mm (adjustable), drops liquid size is 44~55 drops/1cm3. The interval drops of liquid is 30s±5s (adjustable)
- During the testing, the short-circuit current is more than 0.5A to keep 2 seconds, then shut off current, it show the sample not pass.

Inside dimension: 0.5CBM

• Outside dimension: 630mm \* 390mm \* 750mm



### **Needle Flame Tester**

### ► Introduction

According to Standard IEC60695-2-2 and IEC60695-11-5, Needle Flame Tester is applied in the production and quality control department of lighting instrument, hyperpiesia electrical apparatus, domestic appliance, machine electric appliance, electrical machine, power tool, electronic instrument, electrician instrument and technical equipment. Also, it's fit for the industry of insulation material, engineering plastics and solid combustible material.



### ▶ Parameter

Burner Angel: 0°, 20°, 45°Flame Height: 12±1mm

• Needle burner: Height above 35mm, Stainless steel needle Φ0.9mm-Φ0.5mm

• Standard Copper Block: 0.58±0.01g

• Check time: 23.5±1S

Temperature Test: MAX1050°C ±0.1 %

• Thermocouple: RS (British), Type KΦ0.5, accuracy ±0.05%

• Gas variety: Butane or purity above 95% Propane

### **Glow Wire Test Apparatus**

### ► Introduction

It's strictly designed according to IEC60695-2-1, IEC60695-2-10, IEC60695-2-13, (GB/T5169.10-2006~GB/T5169.13-2006) <br/>
basic testing methods of Glow wire, basic testing methods of Glow wire device> and UL746A, IEC829, DIN695, and VDE0471 etc. The glow wire Tester PG-Z17 is suitable for resistance to abnormal heat and fire test on lighting lamps, electronic products and household appliances. Adopting high-temperature coating spraying on steel structure and imported instrument display, with easy operation and stable performance. The equipment is applicable to flame resistance tests of all levels of QC departments and corresponding enterprises.



### Parameter

- Glow Wire temperature: Adjustable continuously within the range of 500~1000°C
- The resolution of temperature is ±2℃
- Glowing time: 0.1~999.9s, ±0.1s (time range is adjustable)
- Burning time: 0.1~999.9s, auto record & manual pause
- Flame Chilling time: 0.1~999.9s, auto record & manual pause
- Glow wire pressure on test specimen: 1±0.2N. Limiting pressure depth is 7mm
- Glow wire: φ4mm nickel 80% chromium 20% which made in specific dimensions
- Thermocouple diameter: φ0.5 armored nickel & chromium/ nickel-chromium wire, K type

# **UL94 Horizontal and Vertical Flame Test Apparatus**

### Introduction

HVR-4 UL94 Horizontal and vertical flame test apparatus is designed according to UL94, IEC60695-11-4 and IEC60695-11-3. The fire hazard is evaluated by burning rate, after glow time, after flame time and damage length of the specimen. HVR-4 horizontal and vertical flame test apparatus is applied to the V-0, V-1, V-2, HB and 5V materials, it is widely used in the R&D department, QC department and production department of lighting equipment, low-voltage apparatus, household appliance, motor and etc.. And also can be used in the industries of insulation material, plastic and other solid combustible material.

### Parameter

- Burner: Φ9.5mm ± 0.3mm bunsen burner
- Dip angle:0<sup>0</sup>, 20<sup>0</sup>, 45<sup>0</sup> (manual adjustment)
- Flame height: 20mm ± 2mm to 180mm±10mm (adjustable)
- Flame time: 0-999.9s±0.1s (adjustable)
- After flame time: 0-999.9s±0.1s (auto record, manual pause)
- After glow time: 0-999.9s ± 0.1s (auto record, manual pause)

# **Interior Material of Vehicle Horizontal Flammability Tester**

### Introduction

The Interior Material of Vehicle Horizontal Flammability Tester is strictly designed according to FMVSS571.302, DIN75200, ISO3795 and so on.

### Parameter

• Time range: 0~999.9s, ±0.1s, adjustable (normally 15s)

• Burning gas: LGP or Gas

• Temperature range: 0~99degree • Temperature resolution: 1degree

• Ignition time: 15s

• Ignition height (burner top to specimen center: 19mm

• Test angle: 90°, Vertical • Flame height: 38mm±2 Temperature range: 0~400°C

 Dimensions: W550 \* D210 \* H550mm Studio volume: W385 \* D204 \* H360mm



## **Textile Vertical Flammability Test Apparatus**

### Introduction

Textiles vertical flammability test apparatus is applied to test the burning behaviour of woven fabric, knitted fabric, coated fabric and Laminated products. The equipment is designed according to GB/T5455-1997 and JIS1091-1992.

### Parameter

• Burner: Φ11mm ± 0.3mm igniter

• Burning angle: 25° or 90°

• Flame height: 30mm ± 2mm to 50mm±2mm (adjustable)

• Burning time: 0-999.9s±0.1s (adjustable)

• Afterflame time: 0-999.9s±0.1s • Afterglow time: 0-999.9s±0.1s • Burning gas: 98% propane gas

• Clamps: U-sharp clamp, (L)422\*(W)89\*(TH)2mm, interior size:

356\*51mm

• Weights: 54.5g, 113.4g, 226.8g, 340.2g, 453.6g each one

Working size: (W)329\*(D)329\*(H)767mm





### TMP-L Lamp Cap Temperature Rising Test System

### ► Introduction

TMP-L is according to IEC60360-1998 and GB2512-2001(Standard method of measurement of lamp cap temperature rise). It is used to test the working and environmental temperature as well as temperature-rise of the burner and lamp. It meets the requirement of IEC and GB Standards.

### Parameter

- Channel sequence is displayed by 2 LED and temperature is displayed by 4 LED; Simultaneously display temperature rise curve.
- Sensor: K type thermocouple and 8 channels for input temperature signal



- Capable of circle monitoring, single monitoring, printing and RS-232-C communication with PC
- Freely set up for channel sequence when circle monitoring
- Application software in Windows can track the changing of the selected channel temperature and provide print and save operation
- Dimension of standard testing box: 90x90x90cm (inner box) and 130x130x115cm (outer box), or customized
- Lamp holder: E14, E27, E40, B22d, G23, GX23, 2G7, 2GX7, 2G11 and other holder

### **TP-X Multiplex Temperature Logging Meter**

### ► Introduction

TP-X multiplex temperature logging meter has supper big LCD display and U-disk interface, which is convenient to display and save the data. It is a good equiment to monitor the temperature of several points at the real time.

### Parameters

- Upper and lower limit set for sound alarm; super big LED displays multiplex channel data; USB port
- Channels of temperature input: max 8 groups, and 8 channels for each group
- Type of thermocouple: T type and J type for special order
- Live test: 500V
- Temperature test range: -100~1000°C
- With anti-interference function
- Capacity of logging, print interface
- Freely check the channels separately
- Equip with software to record the change curve of the chosen channel, and can print and save the report.





### **Electric Safety Comprehensive Test System (6 in 1)**

### **►** Introduction

Electric safety comprehensive test equipment combine the test functions of withstand voltage, insulation resistance, ground resistance, leakage current and power. The equipment can finish the test quickly and accurately, it is a very important test equipment for the manufacturer of electrical appliance.



### ▶ Parameter

Withsta	and voltage Test	Insulation Re	Insulation Resistance Test		
Voltage Range	AC:200~5000V	Voltage Range	AC: 200∼1000V		
Breakdown current	0.02~11mA	Insulation resistance range	1.0~49.9MΩ~1000MΩ		
Grounding Resistance Test		Leakage C	Leakage Current Test		
Output Current	AC 10~25A	Output voltage	1.03/1.11*VAC		
GR range	11~25A:1~200MΩ	Leakage current	0.05~11.00mA		
Power					
Input voltage	1.0*VAC	Current	0.1A~20.00A		
Power	0~6000W	Time setting range	1~300s		

### **Ground Resistance Tester**

### ► Introduction

Ground Resistance tester is applied to test the ground resistance between conductive parts and earth terminal. It is completely meet the requirements of GB, IEC, ISO, BS, UL, JIS and other standards. Ground resistance tester is mainly used in all kinds of motor, electronic appliance and etc.



### Parameter

Model	RK7305	RK7211	RK2678XM
Test Current	AC:3~30A	AC:5.0~30A	AC:5~30A (5~70A)
Decistance range	0-510mΩ@10A	1-120mΩ@11-30A	0-200mΩ/600mΩ
Resistance range	0-120mΩ@10~30A	2-500mΩ@5-10A	0-20011122/00011122

### **DC Electronic Load**

### Introduction

The new generation DC electronic load has the features of high speed and accuracy, the resolution can reach 0.1mV, 0.01mA. DC electronic load is mainly used in production line, like charger, battery, switch, cable).

### Parameter

• Input voltage: 0-150V

Input current: 0-30A (RK8511), 0-60A(RK8512)Input power: 150W(RK8511), 300W(RK8512)

• Test mode: CV, CC, CW, CR



### **LCR Meter**

### ► Introduction

LCR meter is mainly test the parameters of inductance (L), capacitance(C), resistance(R), Q-factor(Q) and loss angle (D). The high accuracy and resolution are greatly improve the reliability. This equipment can widely used in factory, college and lab for accurately test.

### Parameter

• Test parameters: L-Q, C-D, R

• Test accuracy:0.25%

• Test Speed:8times/s

• equivalent circuit: series connection, parallel connection

# RX2811CELCR8\*\*\*\* RX2811CELCR8\*\*\* RX2811CELCR8\*\*\* RX2811CELCR8\*\* RX2811CELC

# **AC/DC Withstand Voltage Tester**

### ► Introduction

Withstand voltage tester is applied to the fields of household appliance, motor, lighting appliance, compressor and etc. to test the break voltage, leakage current and other electronic safety performance. The tester meets the requirements of IEC60335,IEC60598 and IEC60950.

### Parameter

• Output voltage (AC): 0-5KV, 0-50KV, 0-100KV

Output voltage (DC): 0-5KV, 0-50KV, 0-70V, 0-140V

Leakage current (AC): 0-2/20/40/100/200mA

• Leakage current (DC):0-2/10/20mA

• Wave sharp: 50Hz/60Hz sine wave

• Accuracy: ±5%



# **AC/DC Insulation and Withstand Voltage Tester**

### **►** Introduction

Insulation and withstand voltage tester is a kind of electric safety test equipment, widely used in the fields of transformer, equipment, components and etc. to test the performance of insulation and withstand voltage. The equipment can give an alarm at current and resistance, and have 5 groups memories.

### ▶ Parameter

- Test voltage: 0-5KV (AC), 0-6KV (DC)
- Leakage current: 0.10~12.00mA (AC), 0.01-5.00mA (DC)
- Output characteristics: Single phase 47~63Hz, 115V/230V AC±15%
- Accuracy: ±(5%reading+2counts) DC: voltage≥500V



# **Leakage Current Tester**

### **►** Introduction

RK2675 series leakage current tester is applied to test the leakage current caused by power supply, it's an important index to judge the quality of electronic appliance. Leakage current tester is widely used in household appliance, compressor, motor, cable and etc. RK2675 series tester has the alarming function, and the test time and value can be preset.

### Parameter

- Output voltage: 50-430V, 0-250V
- Leakage current(AC):0-2mA, 2mA-20mA,0.01mA-20mA
- Resolution of current:0.01mA





# **AC Digital Power Meter**

### ▶ Introduction

Digital power meter can test voltage (V), current (A), power (W), power factor(PF), frequency(F), and harmonic simultaneously. With alarming, locking and communication functions, it is widely apply to the industries of motor, household appliance, power, lighting and so on.

### Parameter

• Test item: AC single phase V, A, P, PF, F

• Voltage range: 0-600V

Current range: 0-4A, 0-8A, 0-16A, 3.5-20A,7-40A,15-80A

• Frequency:45Hz-65Hz

Power factor:-1.000~1.000PF

Accuracy:±(0.4%reading+0.1%range+1 digit)

Test speed:2 times/s



# **AC/DC Digital Power Meter (Interface model)**

### ► Introduction

PG104 digital power meter can display the AC/DC voltage, current, power factor, frequency and power.

### ► Introduction

- Voltage:600V/75V/35V (DC), 600V/75V/35V(AC)
- Current:20A/2A/0.5A (DC), 20A/2A/0.5A (AC)
- Power factor:-1.000-1.000
- Frequency:45Hz-130Hz
- Bandwidth:5kHz
- Accuracy:±(0.4%+0.1%+1digit)
- •Interface port:RS-232-C

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### **CC&CV DC Power Supply**

### ► Introduction

PG series power supply is special designed for standard lightsoure, it is a high stable and linear power source, with the features of high stability, accuracy, and current adjustable.

### ▶ Parameter

- Output voltage(DC):0.005-30.00V,0.005V-50.000V,0.0005V-300.00V
- Output Current(DC):0.005A-10.00A,0.005A-10.00A,0.005A-5.00000A
- Voltage drift:(±0.01%reading+1mV)/3mins
- Current drift:(±0.01%reading+1mA)/3mins
- Voltage /current accuracy:±(0.02%reading+0.01%)
- Max output power: 300W, 500W, 1500W





### **IGBT/PWM AC Power Source**

### **►** Introduction

1. 4 digits display voltage (V),frequency (Hz),current(A) and power(W) at real time.

Not radiation interference, low harmonic.

Purity and stable sine-wave.

Protection at over-current, high temperature and short-circuit.

### ▶ Parameter

• Capacity:500VA, 1KVA, 2KVA

• Output voltage: 0-150V (low range), 0-300V (high range)

• Output: current: 2.1A, 4.2A, 8.4A, 16.8A

• Output frequency: 43.0Hz-400Hz, 40.0Hz-499.9Hz

Harmonic: Sine-wave, ≤2%

• Protection device: Overload, high temperature, short circuit, cut

down



# **Voltage Regulator**

### Introduction

This series voltage regulator has the features of no distortion, small volume and high efficiency. It is widely used in the industries of chemical, household appliance, metallurgy, public facilities and etc.

### **Parameter**

• Input voltage: 220V, 380V

Output voltage: 0-250V, 0-430VPhase: single phase, 3 phase

• Frequency: 50Hz



### **EMI Test System**

### Introduction

KH3939 EMI receiver is an automatic AIO equipment, fully meet the demand for disturbance power test of power line. And work with artificial network can do the disturbance power test. KH3939 has the features of stability and operability, the data can be output by USB Conveniently. The equipment can connect with external device, like printer, mouse, keyboard. And built in high-capacity hard disk, which can save a lot of files. Adopts windows system, users can operate it easily. As KH3939 receiver can work alone without other control appliances, it solves the problem of the interference source. The system completely meet the requirements of CISPR16-1, GB17743, FCC, EN55015 and EN55022.



### Parameters:

- Frequency range: 9kHz-300MHz(KH3939), 9kHz-30MHz (KH3935)
- Frequency resolution: (9kHz-150kHz): 30Hz; (150kHz-30MHz): 1kHz; (30MHz-300MHz): 10kHz
- Frequency stability: 10<sup>-6</sup>
   Input Impedance: 50Ω
   Test pattern: AVG, QP, PK
   Insertion Loss: 10dB+-1dB
- Current(max):10A
- Terminal voltage measurement range: 0dB -120dB (S/N=6dB 1mV=0dB)
- Sweep bandwidth: 200Hz, 9kHz, 120kHz
- AIO machine, Windows XP system, can connect with keyboard and mouse, USB port to output the data.

### **Voltage Dips and Short Interruption Generator**

### Introduction:

Voltage dips and short interruption generator is designed to simulate voltage dips, short interruption and voltage variations. The generator is completely met the requirements of IEC61000-4-11 and GB/T17626.11. It is widely apply to all kinds of electronic equipment.

### Parameter:

- Wave Generator: AC sine wave
- Voltage dips:0~265V±10% (1V step)
- Dip phase set:0~359°(1°step)
- IEC level built in:0%, 40%, 70%, 120%UT
- Trigger mode:Counting, 50ms
- Durations for voltage dip:0001~9999 cycles (1cycles step)
- Interval for voltage dip:0001~9999cycles (1 cycles step)



### **Surge Generator**

### Introduction

LSG-6K10 surge generator is designed according to IEC61000-4-5 and GB/T17626.5, and completely meet the requirements of the standards. It is widely used in the fields of industry control equipment, house-holding appliance, medical electronics, communications electronics, components, auto control equipment and etc.

### ▶ Parameter

- Output voltage (open):6kV (Max) ±5%
- Time to half-value:50µs ±20%
- Output voltage (short):3kA(max)±5%
- Output impedance:2Ω±10%
- Output polarity:Positive, negative, positive/negative automatically
- Trigger mode:Synchronization,asynchronization
- CDN: single phrase 300V, 10A (16AMax), 50/60Hz
- Surge times:1-9999 times
- Coupling mode:L-N,L-PE, N-PE, L+N-PE
- EUT power supply:AC110-220V±10%, 50/60Hz



# **Electrostatic Discharge Generator**

### Introduction:

ESD simulator (ESD gun) is completely meet the requirements of IEC61000-4-2 and GB/T17626.2. The ESD generator is designed for the assessment of electrical and electronic equipment to withstand ESD performance. Electrostatic discharge generator is widely apply to the fields of industry control equipment, household appliance, chemical electronics, communication electronics, components, auto control equipment and etc.

### ▶ Parameter

- Output voltage (contact/air discharge): 0.1 20kV /30kV±3% (ESD-2000Q/ESD-2005Q)
- Polarity of output voltage:positive, negative, positive/negative auto
- Discharge interval:0.05~99.99s
- Energy storage capacitance:150pF ±10% (replaceable)
- Discharge resistor:330Ω ±10% (replaceable)
- Waveform of contact discharge: Meet the standards of EN/IEC 61000-4-2, GB/T 17626.2
- Numbers of discharge:1~9999
- Rising time:0.8ns ±25%



# **EFT Immunity Measurement**

### ► Introduction:

EFT-5K series electrical fast transient generators is designed according to IEC61000-4-4, and completely meet the requirements of IEC61000-4-4 and GB/T17626.4. They are widely applied to the fields of industry control appliance, household appliance, medical equipment, components, auto control equipment and etc.

### ► Parameter:

- open circuit output voltage:0.25-5kV ±5%
- 50Ω load output voltage:0.125-2.5kV ±5%
- Wave sharp of the pulse:5/50ns,  $50\Omega/1000\Omega$ load
- Rise time:5ns  $\pm 30\%$ ,50 $\Omega$  load;5ns  $\pm 30\%$ , 1000 $\Omega$ load
- CDN:380V,16A/30A, 50/60Hz (AC); 380V,16A/30A (Max,AC)
- Burst period:100-999ms
- Coupling capacitors:33nF ±10%



# **Ring wave Generator**

### ► Introduction:

Ring wave generator is completely meet the requirements of IEC61000-4-12, GB/T17626.12 and ANSIC62.41/45.Ring wave generator is used for the simulating electrical network, the power supply of the reactive load the control line switch, as well as sensing the ring wave of the low voltage cables terminal equipment caused by the disconnection of the power circuit, fault and insulation breakdown or lightning stroke. It is widely used in electronic equipment.

### Parameter:

- Voltage Oscillation frequency (open):100kHz±10%
- Output voltage(open): (250V~4000V) ±10%
- Frontier(open circuit voltage,T1,10%~90%):0.5µs±30%
- Frontier(short circuit voltage,T2,10%~90%):≤0.9µs





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