

Electrical Safety Tester

Standard Withstanding Voltage/Insulation Resistance Tester TES-9700X Series (2% Accuracy)

Product description:

TES-9700X series AC/DC withstand voltage and insulation analyzer integrates AC withstand voltage, DC withstand voltage, insulation resistance, arc detection, open circuit detection and other functions. The size of the whole machine is 2U/half width, and the depth is about 300mm. It is compact and light, accurate and efficient, reliable and stable and has rich interfaces.

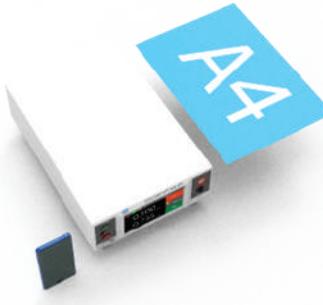


Features

- AC withstand voltage range 5kV/20mA, output capacity 100VA (Max)
- Insulation resistance measurement range 6000V/50GΩ
- The whole machine adopts high-frequency power electronic conversion topology, stable output, extremely light
- Built-in fast rise + slow rise test function in accordance with IEC60601/GB9706.1 standard
- Built-in 100 test groups, each group supports 50 steps
- Open and short circuit detection function: support OSC AC output detection mode
- Arc detection function: built-in arc detection function based on waveform recognition, internationally unique, anti-interference, high accuracy
- User authority setting: built-in password function to distinguish different levels of users
- External interface: standard RS232, PLC/HANDLER and other interfaces.
- Anti-electric shock protection function: built-in leakage protection function, response speed uS level
- Quick test: test step delay <50mS
- Support card expansion: TES9700X-8S supports direct card expansion of multi-channel serial scanning, etc.
- Optional information function: Add TES-107 information module, support internal data storage, data export, MES docking, barcode scanner, USB storage and other functions

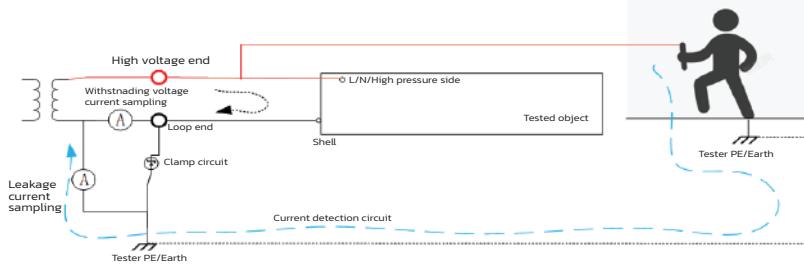
Extremely Light

- Built-in high-frequency power electronic conversion topology, the size and weight are greatly reduced. The length and width of the whole machine are equivalent to the area of an A4 paper, and the weight of the whole machine is only 5.3 kg. Compared with traditional withstand voltage testers, Volume is compressed by half and the weight is reduced to 40%



High voltage testing is dangerous to operators. TES-9700X series has a built-in leakage protection mechanism. When a user is electrocuted, the leakage current detection will be completed within milliseconds and the voltage output will be cut off immediately to ensure safety.

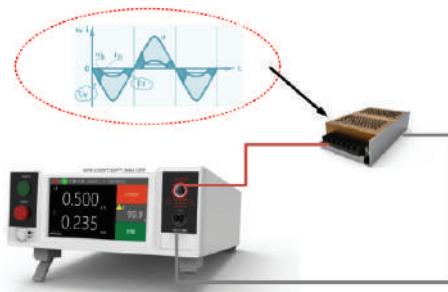
Leakage fast power-off protection



Open-short circuit detection function

- TES-9700X series uses low-voltage and high-frequency lossless technology to increase the output voltage frequency while reducing the voltage level. It detects the cross-sectional capacitance of the object under test and can complete the open circuit and short circuit determination of the output terminal within 0.15, effectively solving the problem that the actual leakage current of the object under test is relatively small and is not suitable for high-voltage lossy testing in the short-circuit state




 Arc Detection Function


- ♦ Arc is a self-sustaining discharge phenomenon caused by high voltage inside or on the surface of insulating materials. The BIN100 series can not only determine the discharge according to the arc level, but also record the discharge waveform under a certain frequency band.


 Specifications

Model	TES-9700X Series	
AC withstanding Voltage Test		
Output Capacity	60VA/ 100VA	
AC Voltage Output	100 ~ 5000V, ±1%	
AC Voltage Source/ Measurement	Range : (Umax ~ Umin) V, resolution : 1V, Accuracy : ±(2% x set value +5V)	
Output Frequency	50Hz/60Hz, accuracy : ±0.1Hz	
Output Regulation	±(2% x set value +5V), no load to full load	
Waveform Distortion	Sine wave, <2% (resistive load)	
AC Current Measurement	0.001 ~ 12mA, ±2% (TES-971XX series), 0.001 ~ 20mA, ±2% (TES-972XX series)	
AC Current Measurement	Range : 0.010 ~ 3.500, 3.00 ~ Imax, resolution : 0.001/0.01mA, Accuracy : ±(2% x reading value +5 words)	
Accuracy	Accuracy : ±(2% x reading value +5 words)	
Ramp Up-Down Time	Range : 0, (0.1 ~ 999.9)s, resolution : 0.1s	
Duration	Range: 0, (0.5 ~ 999.9)s, resolution 0.1s, Accuracy: ±(1% x set value + 1 word)	
Arc Detection	1 ~ 9 (9 is the most sensitive), 0 means arc off function	
Current Compensation	0.000~Imax, total current + compensation current < Imax, automatic	
DC withstanding voltage Test		
Rate Output	6kVDC/5mA (TES-971XX series), 6kVDC/7.5mA (TES-972XX series)	
DC Voltage Output	Range : 100 ~ 6000V VDC, resolution : 1V, Accuracy : ±(2% x set value +5V)	
DC Voltage Measurement	Range : 0.100 ~ 6.000 kVDC, resolution : 1V, Accuracy : ±(2% x reading value +5words)	
Output Ripple	<5% (6kV/1mA resistance load)	
Output Regulation	±(1% x set value +2V), no load to full load	
DC Current Measurement	Range : 0.0 ~ 350.0/300 ~ 3500μA/3.00 ~ Imax, resolution : 0.1/1μA/0.01mA, Accuracy : ±(2% x reading value +5words)	
Ramp-up Time	Range : 0, (0.4 ~ 999.9)s, 0 means off	
Duration	Range: 0, (0.5 ~ 999.9)s, 0 is infinite, resolution 0.1s, Accuracy : ±(1% x set value + 1 word)	
Current Compensation	0 ~ 200 μA, Automatic	
Automatic Discharge	Have	
Insulation Resistence Test		
IR Voltage Upper Limit Umax	6000V	
IR Voltage Lower Limit Umin	100V	
DC Voltage Soure / Meas.	Range : (Umax ~ Umin) V, resolution : 1V, Accuracy : ±(2% x set value +5V)	
IR Test Upper Limit Rmax	50GΩ	
IR Measurement	Range : 0.100MΩ ~ Rmax, resolution : 0.001MΩ/ 0.01MΩ/ 0.1MΩ/ 0.001GΩ/ 0.01GΩ Accuracy : 100V ~ 499V : 0.100MΩ ~ 2.000GΩ, ±(5% x reading value +2 words) 500V ~ Umax : 0.100MΩ ~ 999.9MΩ, ±(2% x reading value +2 words) : 1.000GΩ ~ 9.999GΩ, ±(5% x reading value +2 words) : 10.000GΩ ~ Rmax, ±(15% x reading value +2 words)	
Ramp-up Time	Range : 0, (0.1 ~ 999.9)s, 0 means off	
Delayed Judgment Time	Range: 0, (0.5 ~ 999.9)s, 0 is infinite, resolution 0.1s, Accuracy : ±(1% x set value + 1 word)	
Interface Port	RS232, PLC/Handler	
General System Specification		
Installation Location	Indoor, altitude not higher than 2000meters	
Usage Environment	Temperature	0 ~ 40°C
	Humidity	40°C,(20% ~ 90%RH)
Storage Environment	Temperature	-10°C ~ 50°C
	Humidity	50°C, 90%RH , 24h
Input Power	AC 220V ±10%, 50Hz±5%, 10A	
Power Consumption	Full Load	Less than 20W
	No Load	Less than 80W
Dimension	215(W)x88(H)x315(D)	
Weight	About 5.3kg	


 Ordering Information

TES-9711X : AC Hipot Tester, ACW: 5kVac/12mA

TES-9712X : AC/IR Hipot Tester, ACW: 5kVac/12mA, IR: 6kVdc/50GΩ

TES-9713X : AC/DC/IR Hipot Tester, ACW: 5kVac/12mA, DCW: 6kV/5mA
IR: 6kVDC/10GΩ

TES-9721X : AC Hipot Tester, ACW: 5kVac/20mA

TES-9722X : AC/IR Hipot Tester, ACW: 5kVac/20mA, IR: 6kVdc/50GΩ

TES-9723X : AC/DC/IR Hipot Tester, ACW: 5kVac/20mA, DCW: 6kV/7.5mA
IR: 6kVDC/10GΩ

TES-9704X : DC Hipot Tester, DCW 6kV/5.0mA

TES-9714X : DC Hipot Tester, DCW 6kV/7.5mA

TES-9705X : IR Tester, IR: 1kVDC/50GΩ

TES-9715X : IR Tester, IR: 1kVDC/50GΩ

Standard Accessories :

- User Manual
- Power cord
- Test leads

Optional Accessories :

- LAN interface port
- Information Module Function
- Expansion card (multi-channel scanning)