

VLF Series VLF AC Hipot Test Set



picture only for reference first

Withstand voltage test is an essential preventive test for electrical equipment. It is divided into two parts: AC and DC withstand voltage test. AC test can be further divided into power frequency, variable frequency and 0.1Hz very low frequency test, among which the last one is highly recommended by IEC, due to its remarkable advantages.

Following is a comparison for DC, Power Frequency, Variable Frequency, and 0.1Hz test.

Aspects	DC	Power Frequency	Variable Frequency	0.1Hz
Equivalency	poor	good	good	good
Insulation Damage	strong	slight	slight	slight
Operation Safety	relatively low	relatively low	relatively low	high
Wiring Difficulty	complicated	complicated	most complicated	simple
Volume	smallest	largest	large	small

In fact, VLF test is the substitute for power frequency test. It is suitable for testing electrical equipment with large capacitance (like power cable, power capacitor, motor, and generator).

Description

The new generation of VLF series 0.1Hz VLF AC Hipot Test Set developed by HV Hipot adopts "Smart Quick" intelligent power test system (Soft No. 1010215, trademark registration number 14684781), HV HIPOT company introduced the latest international

power electronic components and the latest ARM7 microcontroller technology, further reducing the size and weight of the equipment. The operation is easier, and the performance is more stable.

Features

- Advanced technology adopts digital frequency conversion technology, fully automatic microcomputer control, voltage boost, step-down, measurement, protection, etc.
- Control part and High-voltage part adopt an integrated structure design, and only a high voltage wire and ground wire are needed to connect to the tested product without the intermediate connection wire.
- Trolley-style design is convenient for transportation in various working environments, and its small size and light weight are very conducive to outdoor operations(80kV).
- Over-voltage protection and over-current protection. Action time is no longer than 10ms.
- The control unit and the booster are connected at low voltage, with photoelectric isolation control, safe and reliable to use.
- Closed-loop negative feedback circuit is adopted. No capacity rising during outputting.
- Capacitive touch screen, LCD graphic display, automatic storage, and printing.
- 0.1Hz, 0.05Hz and 0.02Hz can be chosen, which ensures a wide test range.

Specifications

- Peak voltage: 30kV, 60kV or 80kV, sine wave
- Test frequency: 0.1Hz, 0.05Hz and 0.02 Hz (selectable)
- Maximum load capacity: 1.1 μ F@0.1Hz
2.2 μ F@0.05Hz
5.5 μ F@0.02Hz
- Output current: 30mA.
- Measurement accuracy: 3%.
- Voltage peak value error: \leq 3%.
- Voltage waveform distortion: \leq 5%.
- Working environment: indoor or outdoor; -10 $^{\circ}$ C-+40 $^{\circ}$ C; 85%RH

- Power supply: 220V \pm 10%, 50Hz \pm 5% (If using a portable generator, make sure the output voltage and frequency are stable. Power >3kW, frequency 50Hz, voltage 220V \pm 5%.)
- Capacitance of the tested object shall not exceed the max. rated capacitance of the instrument. The max. capacitance please see below table.

Model	Rated voltage	Load capacitance	Power fuse	Structure & Weight
VLF-34	30kV (peak value)	0.1Hz, \leq 1.1 μ F	8A	One piece: About 45kg
		0.05Hz, \leq 2.2 μ F		
		0.02Hz, \leq 5.5 μ F		
VLF-63	60kV (peak value)	0.1Hz, \leq 1.1 μ F	10A	One piece: About 70kg
		0.05Hz, \leq 2.2 μ F		
		0.02Hz, \leq 5.5 μ F		
VLF-84	80kV (peak value)	0.1Hz, \leq 1.1 μ F	20A	One piece: About 80kg
		0.05Hz, \leq 2.2 μ F		
		0.02Hz, \leq 5.5 μ F		



30kV device



60kV or 80kV device