VLF (Very Low Frequency Tester) with Tan Delta option

TAN-DELTA FUNCTION

touch

Colour Display

VLF.Series

Product Overview

- The VLF sine wave test series is a compact, robust and portable VLF sine wave test system for medium and High voltage cables.
- Due to the air cooling, the VLF sine wave test series can be used without interruption and is therefore ideal for all users who will be testing with 0.1 Hz sine wave voltages.
- The VLF testing system is easy to use thanks to its single-button operation and clear simply structured menu and large LCD display.
- VLF Series ultra-low frequency AC threshold voltage testers are suitable for many application such as insulation threshold voltage on-site testing of Polyethylene, cross-linked polyethylene plastic cable and other high voltage electrical equipment for power department, industrial and mining company.
- Compared with DC voltage threshold test, this device is deemed as a non-destructive test and is a great alternative to AC frequency voltage withstand testing
- DC withstand test function available with Model S units.

Key Features:

- Data of current and voltage are obtained directly through the sampling of high-potential side.
- Over-voltage protection: shut down protection operates within 20ms when the output voltage exceeds limits.
- Over-current protection: dual protection of high and low voltage, downtime protection can be accurately set on high-potential side and shut down protection operates within 20ms when the current of the low-voltage side exceeds current limits.
- High-voltage output protection resistor is integrated in the HV booster which eliminates the need for an additional outside resistor.
- The settings allow you to regulate the frequency which can be adjusted to the following output frequency to 0.1,0.05 and 0.02HZ
- Closed-loop negative feedback control circuit of high and low voltage.
- Measurement accuracy: 3%
- Positive and negative voltage peak errors: ≤ 3%
- Voltage wave form distortion: ≤ 5%
- Operating Temperature (indoor and outdoor): -10℃~+40℃
- Humidity: ≤ 85%RH
- Power: AC50Hz, 220V ±5%

VLF Technical Specifications

AC Ultra-low frequency testing

Model	Rated Voltage	Load Carrying Capacity	Product structure, weight, application range
VLF30/40kV	30/40kV (Peak)	Automatic frequency change: 0.1Hz-0.01Hz On-load capacity: ≦10μF	Controller: 4kg Booster: 25kg Used for voltage test of cables and motors within 11KV(30kV model) 22kV(40kV model)
VLF50kV	50kV (Peak)	Automatic change frequency: 0.1Hz-0.01Hz Load capacity: ≦10μF	Controller: 4kg Booster: 25kg Used for voltage test of cables and motors within 22KV
VLF60kV	60kV (Peak)	Automatic change frequency: 0.1Hz-0.01Hz Load capacity: ≦5μF	Controller: 4kg Booster: 25kg Used for voltage test of cables and motors within 33KV
VLF80/90kV	80/90kV (Peak)	Automatic change frequency: 0.1Hz-0.01Hz Carrying capacity: ≦10μF(within 50kV), ≦4μF(above 50kV)	Controller: 4kg Primary booster (40kV) : 25kg Two stage booster (40/50kV) : 45kg Used for voltage resistance test of cables and motors greater than 35KV

DC Withstand voltage test

Main technical indicators

1.Output rated voltage: 0-30/50/60/80/90kV
2.Voltage accuracy: 3%
3.DC leakage current range: 0-20mA
4.DC leakage current resolution: 1μA
5. DC leakage current accuracy: 3%

Operation method

The operation method is the same as the ultra-low frequency AC test operation, and the connection method is the same. Enter the parameter setting interface below and set the test voltage and test time first, then click DC Test; to start boosting the voltage. It will stop automatically when the timer is full. Click the stop button to stop immediately. After shutdown, the instrument cannot discharge automatically and must be discharged manually.

Please not that Models ST version will need to be ordered for the Tan Delta module inclusion **(eg VLF60KV ST)**

Tan Delta Option: Technical Specifications

Dielectric loss test voltage range	1kV-90kV (low test voltage affects test accuracy)
Dielectric loss test frequency:	0.1Hz
Dielectric loss measurement range	0.01 × 10 -3- 655.35 × 10-3 for sizes greater than 655.35 × The value of 10 -3 will be greater than 655.35 × 10 -3 Reminder
Dielectric loss measurement accuracy:	1%
Dielectric loss resolution:	1x10 -5
Capacitance measurement range:	0.001 μ F–10 μ F
Electrical capacity resolution:	0.001 μ F
Capacitance measurement accuracy	3%
Insulation resistance measurement range:	1MΩ -65535MΩ. For values greater than 65535MΩ, a prompt of>65535MΩ will be given (these data are located in the qualified area of the cable).
Insulation resistance resolution:	1M Ω
Insulation resistance measurement accuracy	3%
Voltage accuracy:	3%
AC current range:	0-59mA
AC current resolution:	0.1mA
AC current accuracy:	3%
DC current range:	0-20mA
DC current resolution:	1 μ A
DC current accuracy:	3%
RS232 (or USB) communication interface	