

smart VLF™

5-in-1 Universal  
High Voltage  
Diagnostic  
Testing System

45kV  
with Intergrated  
Tan Delta!

HVA 45 TD

Automatic TD Evaluation  
USB & Bluetooth Connectivity  
35kV Diagnostics Testing  
25kV Acceptance Testing



Condition Assessment	TD Temporal Stability $\mu\text{SU0}$ [E-3]		Differential TD [E-3] 1.5U0-0.5U0		TD 1U0 [E-3]
No Action Required	$\leq 0.1$	AND	$\leq 5.0$	AND	$\leq 4.0$
Further Study Advised	0.1 - 0.5	OR	5.0 - 80.0	OR	4.0 - 50.0
Action Required	$> 0.5$	OR	$> 80.0$	OR	$> 50.0$

Features:

- Max Output Voltage: 45kV pk / 32kV rms
- Pure Sinusoidal Output Voltage
- High Test Load Capacity of 10 $\mu\text{f}$
- USB and Bluetooth Connectivity
- VLF AC, DC, Jacket/Sheath, Fault Conditioning Test Modes
- In Compliance with: IEEE400, 400.2, IEC60502-2, CENELEC HD620/621
- Automatic, Easily Programmable Test Sequences
- Automatic TD Evaluation
- Reporting Software Included
- 4.3" Color Display with Intuitive Menu Operation
- Vacuum Bottle Testing
- Optional: Partial Discharge Interface

Rugged  
Portable  
VLF & TD  
86lbs / 39kg



**HV Diagnostics**  
INC.



# smart VLF™

## HVA 45 TD

### Technical Data

Model		HVA45 TD
Ordering Information		745 003
Input Supply Voltage		100 - 240 V 50/60 Hz
Input Supply Power		1.2kVA
Output Voltage (Max.)	Sinewave	0 - 45 kV <sub>peak</sub> , 32 kV <sub>rms</sub>
	DC	± 0-45 kV
	Squarewave	45 kV
	Accuracy	± 1%, Resolution: 0.1 kV <sub>r</sub>
Output Current		0-60 mA, Accuracy: ± 1%, Resolution: 1 µA
Resistance Range		0.1 MΩ - 20 GΩ
Output Frequency		0.01-0.1 Hz in Steps of 0.01 Hz (default 0.1 Hz) Automatic Frequency Optimization
Output Load		1 µF @ 0.1 Hz @ 32 kV <sub>rms</sub> 10.0 µF @ 0.01 Hz @ 32 kV <sub>rms</sub> 10.0 µF Maximum Capacitance*
Sheath Test		Max Test Voltage: 10 kV   Trip Current: 0.1 mA - 5.0 mA
Sheath Fault Location		Max Test Voltage: 10 kV   Pulse/Period: 1:3 / 4 s, 1:5 / 4 s, 1:5 / 6 s, 1:9 / 6 s
Metering		Voltage and Current (True rms and / or Peak), Tan Delta Capacitance, Resistance, Time, Flashover Voltage
Tan Delta Measurement		Accuracy ± 1 x 10 <sup>-4</sup> . Fully Compliant with IEEE400.2
Duty Cycle		Continuous !
Test Modes		Manual & Automatic
Output Modes		AC (VLF) Sinewave Symmetrical and Load-Independent Across Full Range, DC (Plus or Negative Polarity), Burn/Fault Condition or Fault Trip Mode, Jacket/Sheath Testing, Squarewave
Safety		50 / 60 Hz - 12kV Feedback Protection / Dual Discharge System (internal)
Computer Interfaces		Bluetooth and USB
Record Storage		Built-in Memory: Up to 50 Reports, 50 Test Sequences USB Flash Drive: Unlimited
PC Software		"HVA Control Center" and "TD Control Center" Windows Compatible
Weight		39 kg/ 86 lbs
Dimensions		500 mm x 305 mm x 457 mm/ 19.7" x 12" x 18"
Environment		Storage Temperature: -25°C to 70°C (-13°F to 158°F) Operating Temperature: -20°C to 55°C (-4°F to 131°F) Humidity: 5-70% Non-Condensing
Upgrades (Optional)		Partial Discharge Diagnostic System PD60/PDTD60
		Rugged Transport Case for HVA45/TD and All Accessories. Part # 745 005
*At Lower Frequency and Voltage		



Optional Transport Case



PD60-2

**Note:** Due to continuous development, the information detailed in this document may change without notice.