HVA68TD
VLF high voltage test set

The HVA68TD is a truly compact and portable VLF test set that determines the condition of medium voltage cables with a voltage rating up to 46 kV (acc. to IEEE 400.2). It performs VLF and DC testing, as well as sheath testing and sheath fault location (additional fault probe needed).

The high output power of the HVA greatly expands the load possibilities. It allows testing longer cables or several phases in parallel. The integrated Tan Delta diagnostics enables a straightforward condition assessment of the cable system.

Performance: Best in class output power combined with outstanding TD diagnostics features.

Safety first: Two independent discharge devices (electronic & mechanical) plus an integrated 12 kV backfeed protection system (at 50/60 Hz).

MWT: The HVA68TD offers Monitored Withstand Testing, a combination of withstand testing & Tan Delta diagnostics in compliance with IEEE 400.2.

Connectivity: On-site, no external PC is needed. All results can be downloaded later via USB or Bluetooth for further investigation and easy reporting with the HVA ControlCenter.

Flexible high voltage connection options: Our HV test leads enable a simple and safe connection between HVA & DUT. They are available in different lengths and are quickly exchangeable.

Output voltage	max. 68 kV_{peak}, 48 kV_{rms}
Output load	2 µF @ 0.1 Hz @ 44 kV_{rms}
Dimensions L x W x H	466 x 340 x 510 mm | 18.3 x 13.4 x 20.1 in
Order number	706 803

YOUR BENEFITS

TRUE MODULARITY
HVA68TD can be easily extended to a complete cable diagnostics system by adding products from our PD or PDTD series at any time.

ARC PRE-LOCATION
The integrated APL function pre-locates arcs while testing. This adds additional value to traditional VLF testing, saving time and cost in subsequent cable fault location processes.

UNLIMITED OPERATING TIME
HVA test sets are designed for continuous operation without any thermal limitations.

COMPACT AND PORTABLE
Our HVA series has been designed for maximum portability, resulting in widely applicable devices for any type of on-site use.

- Arc Pre-Location function while testing
- Pure sinusoidal output voltage (load-independent)
- Sheath fault pinpointing (additional fault probe needed)
- Oil-free and non-arcing contacts eliminate routine servicing and make the HVA almost maintenance-free
- Easily changeable HV test lead
- Breakdown voltage and load detection
- Real time oscilloscope of the output voltage on the HVA display
- Download reports from device via USB flash drive or Bluetooth
- Programmable test sequences with a tailor-made software tool

HVA68TD
VLF high voltage test set

TECHNICAL DATA

Output characteristics		
Output voltage	VLF sine wave	0 ... 48 kV_{rms} / 0 ... 68 kV_{peak}
	DC	-68 kV ... 68 kV
	VLF square wave	0 ... 68 kV
	Sheath test	0 ... 15 kV (negative polarity)
	Voltage setting resolution	0.1 kV
	AC frequency range	0.01 Hz ... 0.1 Hz
	Frequency setting resolution	0.01 Hz
Output current	AC	56 mA_{rms} max.
	DC	88 mA max.
	Sheath test trip current	0.1 ... 5 mA
	Sheath fault location	35 mA max.
Duty cycle		Continuous, no thermal limitation of operating time

High voltage tests		
Test types		VLF withstand test | VLF Tan Delta test | Monitored Withstand test | DC test | Sheath test | Vacuum bottle test
	Sheath fault location	pulse / period: 1:3 / 4s, 1:5 / 4s, 1:5 / 6s, 1:9 / 6s (requires optional sheath fault locator)
Test modes		Manual mode
		Automatic test sequences (user definable)
Arc management modes		Burn on arc
		Trip out on arc
Compliance		VLF withstand testing according to IEEE 400.2 & test standards DIN VDE 0276-620 (CENELEC HD 620 S2), DIN VDE 0276-621 (CENELEC HD 621 S1)
		AC and sheath testing according to IEC 60502-2 / IEC 60229

Metering		
Tan Delta	Load 10 nF ... 10 µF	
	TD range	0.1 ... 999 E-3
	Resolution	single: 0.1 E-3 | mean: 0.01 E-3
	Accuracy	± 0.1 E-3
	Load 1 nF ... 10 nF	
	TD range	0.1 ... 999 E-3
	Resolution	single: 0.1 E-3 | mean: 0.01 E-3
	Accuracy	± 0.3 E-3
Arc Pre-Location	Measuring range	80 m ... 10 km
	Velocity range (v/2)	10 ... 150 m/µs
	Resolution	0.1 m

Further characteristics	
AC supply	120 ... 240 V, 50/60Hz. 1.5 kVA @ 120V (limited) 3.5 kVA @ 240V
Product safety	Backfeed protection: 12 kV at 50/60 Hz
	Dual Discharge Device (integrated electronic & mechanical discharge device)