

# HVA45TD

the smallest VLF test system of its performance class  
with integrated Tan Delta diagnostics system



45 kV<sub>peak</sub> 32 kV<sub>rms</sub>  
48 kV<sub>peak</sub> 34 kV<sub>rms</sub>  
Option\*



39 kg



integrated  
TD diagnostics

The HVA45TD is a truly compact and portable VLF test set system for testing medium voltage cables. It performs **VLF** and **DC** testing, **sheath testing with sheath fault location mode** and **TD leakage current correction** (guard terminal) is included. Assessments of cable condition can also be carried out by use of **Tan Delta Diagnostics**.

**MWT:** the recently introduced **Monitored Withstand Test (MWT)**, a combination of Withstand Testing and Tan Delta Diagnostics in compliance with IEEE 400.2-2013, can be performed.

**Performance:** the HVA45TD offers outstanding features in terms of size, weight (39 kg) and performance (max. 10  $\mu$ F).

**Safety:** the instrument has two independent earthing devices (electronic and mechanical discharging) and an integrated 12 kV feed-back protection system to protect both operator and instrument.

**Field use:** a watertight and very rugged case with a protection class of IP67 makes additional transport boxes obsolete.

**Connectivity:** on site, no external PC is needed. All results can be downloaded later by USB or Bluetooth for further investigation and easy report creation on the PC Software.

**Unlimited operating time:** Operating time of the HVA high voltage generators are not thermally limited and can be operated continuously.



## Features

- Output voltage 45 kV<sub>peak</sub> 32 kV<sub>rms</sub>
- + 3 kV option\*: 48 kV<sub>peak</sub> 34 kV<sub>rms</sub>
- Pure sinusoidal output voltage (load-independent)
- Internal TD measurement with high accuracy ( $1 \times 10^{-4}$ )
- Tan Delta measurement with various frequencies (0.01-0.1 Hz)
- Leakage Guard® - leakage current correction
- Output current 60 mA max.
- 1.0  $\mu$ F @ 0.1 Hz @ 32 kV rms
- Highest test capacity of 10  $\mu$ F
- Ultra light and compact weight (39 kg)
- Protection class IP67 (with closed lid)
- Total protection: almost unbreakable, watertight, dustproof and corrosion proof case
- Large Colour display (4,3")
- USB and Bluetooth connections
- Cable testing according: IEC60502-2:2015, IEEE 400.2-2004, CENELEC HD 620/621, IEEE400.2-2013 etc.
- Programmable test sequences
- Upgradable with Partial Discharge diagnostics system (optional)
- 12 kV transient protection (50 Hz)
- Dual Discharge Device (DDD®), integrated electronic and mechanical discharge devices
- Easily exchangeable HV cable
- Intuitive menu operation
- Sheath Fault Locating (in combination with Earth Fault Locator) (not included)
- Vacuum Bottle Test
- Insulation Testing

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dry system



upgradeable to PD diagnostics system



unlimited operating time



Trolley type

Type		HVA45TD
Article number		SH5011
Input voltage		100-240 V, 50/60 Hz, 1200 VA
Output voltage	VLF sine wave	0-45 kV peak, 32 kV rms
	<b>+3 kV Option*</b>	<b>0-48 kV peak, 34 kV rms (Art. Nr. GH5845)</b>
	DC	± 0-45 kV
	VLF square wave	0-45 kV
	accuracy	± 1 %
	resolution	0.1 kV
Output current		0-60 mA
Resistance range		0.1 MΩ-5 GΩ
Output frequency		0.01-0.1 Hz in steps of 0.01 Hz default: 0.1 Hz (auto frequency)
Tan Delta	accuracy	± 1 x 10 <sup>-4</sup>
Output load		1.0 μF @ 0.1 Hz @ 32 kV rms 10.0 μF maximum Capacitance! <sup>1</sup>
Sheath test	max. test voltage	10 kV
	trip current	0.1-5.0 mA
Sheath fault location <sup>2</sup>	max. test voltage	10 kV
	Pulse/Period	1:3 / 4 s, 1:5 / 4 s, 1:5 / 6 s, 1:9 / 6 s
Output Modes		AC (VLF) Symmetrical and load independent across full range, DC (plus or negative polarity), Burn-/Fault Condition or Fault Trip Mode, Jacket/Sheath Testing
Safety		12 kV/50 Hz Feedback Protection   integrated electronic and mechanical discharge devices - DDD®: Dual Discharge Device (internal)
Memory		50 Test Record Stored, USB almost unlimited
Metering		Voltage and Current (True rms and/or peak), Capacitance, Resistance, Time, Flashover Voltage
Duty cycle		Continuous! No thermal limitation for operating time.
HV-Cable		5 m with clamps
Software		"b2 ControlCenter" (included)
Computer interfaces		Bluetooth and USB flash drive
Dimensions LxWxH		500 x 305 x 457 mm (Peli Case)
Weight		39 kg
Environment		temperature: storage -25°C to + 70°C, operating -20°C to + 55°C humidity: 5-85 % non condensing

<sup>1</sup> at lower frequency and voltage | <sup>2</sup> in combination with locating device (not in scope of supply)

\* default: the HVA45TD is supplied with an output voltage of 45 kV<sub>peak</sub> 32 kV<sub>rms</sub>. The option +3 kV must be ordered additionally.

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DHV1365 Rev04 - ENGLISH - Subject to alternations. Errors excepted. Illustrations are not binding.



## Options

- Partial Discharge diagnostics system

## Scope of delivery

- HVA45TD testing device inc. Tan Delta diagnostics
- PC Software - b2 ControlCenter
- HV cable 5 m
- Power and earthing cable
- Accessory bag
- USB Stick
- Operating manual