

# HVA28TD

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



VLF 0.1 Hz  
29 kV<sub>peak</sub>



14 kg



integrated  
TD diagnostics



The HVA28TD 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 HVA28TD offers outstanding features in terms of size, weight (14 kg) and performance (max. 10  $\mu$ F).

**Safety:** the instrument has two independent earthing devices (electronic and mechanical discharging) and an integrated 12 kV feedback 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.



USB  
Bluetooth



IP67



Color  
Display  
4.3"

## Features

- Output voltage 29 kV<sub>peak</sub> / 21 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 20 mA max.
- 0.5  $\mu$ F @ 0.1 Hz @ 20 kV rms
- Highest test capacity of 10  $\mu$ F
- Ultra light and compact weight (14 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

# HVA28TD



dry system



upgradeable to  
PD diagnostics  
system



unlimited  
operating time



protection class  
IP67

Type		HVA28TD
Article number		SH5002
Input voltage		100-240 V, 50/60 Hz, 400 VA
Output voltage	VLf sine wave	0-29 kV peak, 21 kV rms
	DC	± 0-28 kV
	VLf square wave	0-28 kV
	accuracy	± 1%
	resolution	0.1 kV
Output current		0-20 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		0.5 µF @ 0.1 Hz @ 20 kV rms 5.0 µF @ 0.01 Hz @ 20 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		4 m with alligator clamps
Software		"b2 Control Center" (included)
Computer interfaces		Bluetooth and USB flash drive
Dimensions LxWxH		416 x 221 x 334 mm (Peli Case)
Weight		14 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)

## Options

- Partial Discharge diagnostics system

## Scope of delivery

- HVA28TD testing device incl. Tan Delta diagnostics
- PC Software - b2 ControlCenter
- HV cable 4 m
- Power and earthing cable
- Accessory bag
- USB Stick
- Operating manual