

HVA28 & HVA28TD VLF high voltage test set

Datasheet

The HVA28 and HVA28TD are truly compact and portable VLF test sets that determine the condition of medium voltage cables. The HVA28TD includes integrated Tan Delta diagnostics capabilities, in comparison to the HVA28 device, which can be upgraded with a TD diagnostics unit. Both test sets perform VLF and DC testing, as well as sheath testing with sheath fault location.

Performance: Outstanding features considering size and weight vs. output load.

Duty cycle: Operating time is not thermally limited; the test sets may be operated continuously.

Safety first: Two independent discharge devices (electronic and mechanical discharging) and an integrated 12 kV transient protection system (at 50/60 Hz).

Connectivity: On-site, no external PC is needed. All results can be later downloaded via USB or Bluetooth for further investigation and easy reporting via the b2 ControlCenter.

MWT: In addition, HVA28TD offers a Monitored Withstand Test, a combination of Withstand testing and Tan Delta diagnostics in compliance with the guide IEEE 400.2-2013.



Output voltage	max. 29 kV _{peak} , 21 kV _{rms}
Output load	0.5 μF @ 0.1 Hz @ 20 kV _{rms}
Weight	14 kg / 31 lbs

YOUR BENEFITS



SMALL AND LIGHTWEIGHT
The HVA series offers the smallest and lightest VLF hipot test sets available. This makes them widely applicable for in-field use.



DRY SYSTEM
HVA test sets are constructed with nonarcing contacts and no need to change oil. This eliminates routine servicing and makes the test sets almost maintenance-free.



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



IP67
A watertight and very rugged case with a protection class of IP67 makes additional transport boxes obsolete.

- Pure sinusoidal output voltage (load-independent)
- Sheath fault pinpointing in combination with sheath fault locator (not included)
- Easily exchangeable HV test lead
- Safe communication over Bluetooth
- Large color display (4.3")
- Programmable test sequences with a tailor-made software tool
- Download reports from the device via USB flash drive

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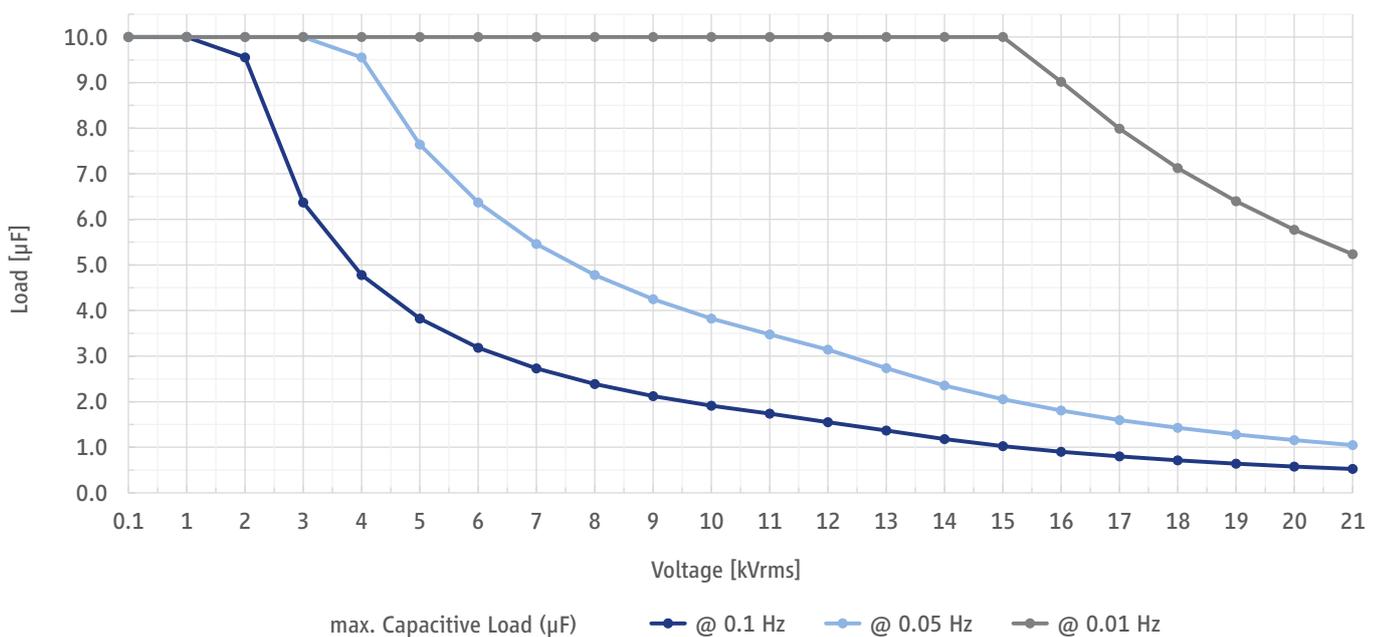
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TECHNICAL DATA

Output characteristics	
VLF sine wave	0 ... 21 kV _{rms} / 0 ... 29 kV _{peak}
DC	-28 kV ... 28 kV
VLF square wave	0 ... 28 kV
Output voltage	
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	12 mA _{rms} max.
DC	17 mA max.
Sheath test trip current	0.1 ... 10 mA
Sheath fault location	17 mA
Duty cycle	Continuous, no thermal limitation of operating time

Load diagram for Sinewave



High voltage tests	
Test types	VLF withstand test
	VLF Tan Delta test – (for HVA28TD only)
	Monitored Withstand Test – (for HVA28TD only)
	DC test
	Sheath test
	Sheath fault location
Vacuum bottle test	

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High voltage tests (continued)		
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 and the test standards DIN VDE 0276-620 (CENELEC HD 620 S2), DIN VDE 0276-620 (CENELEC HD 621 S1) AC and sheath testing according to IEC 60502-2 / IEC 60229	
Metering		
Output voltage measurement range	AC TrueRMS	
	Maximum display value	29 kV _{rms}
	Resolution	0.1 kV _{rms}
	Accuracy	± 0.1 kV _{rms} ± 1% of reading
	DC	
	Maximum display value	40 kV
	Resolution	0.1 kV
	Accuracy	± 0.1 kV ± 1% of reading
Output current measurement range	AC TrueRMS	
	Maximum display value	39 mA _{rms}
	Resolution	0.1 / 1 / 10 / 100 μA _{rms}
	Accuracy	± 1μA _{rms} ± 1% of reading
	DC	
	Max./min. display values	± 55 mA
	Resolution	0.1 / 1 / 10 / 100 μA
	Accuracy	± 1μA ± 1% of reading
Tan Delta HVA28TD only	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
Resistance	Range	0.1 MΩ ... 5 GΩ
	Resolution	0.1 / 1 / 10 / 100 MΩ
	Accuracy	typ. 10%
Capacitance	Range	0.1 nF ... 10 μF
	Resolution	0.01 / 0.1 / 1 nF and 0.01 / 0.1 μF
	Accuracy	typ. 20%
Flashover voltage	Full output voltage range	

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Further characteristics	
AC supply	100 ... 240 V, 50/60 Hz, 400 VA
Product safety	Backfeed protection: 12 kV at 50/60 Hz
	DDD™ Dual Discharge Device (integrated electronic and mechanical discharge device)
Environmental conditions	Operating temperature range -20 ... +55 °C
	Storage temperature range -25 ... +70 °C
	Humidity 5 ... 85%, non condensing
Data transfer	USB type A
	Bluetooth
Report management	Built-in memory: up to 50 reports, 50 test sequences
	USB flash drive: unlimited
PC software	b2 ControlCenter (included)
Dimensions L x W x H	417 mm x 221 mm x 334 mm 16.40 in x 8.71 in x 13.15 in
Weight	14 kg / 31 lbs

SCOPE OF SUPPLY

	Art. No.		
HVA28 VLF High Voltage Test Set	SH5001		
HVA28TD VLF High Voltage Test Set	SH5002		
			
Included accessories	HVA28	HVA28TD	Art. No.
HVA34 HV test lead 65 kV 4 m 80 A with clamp	1	–	GH0570
Earth lead 4 m 6 mm ² transparent M6/Clamp	1	1	GH0522
Power chord country specific - Unit side C13	1	1	XKEK0001
HVA language specific manual	1	1	XDHV0004
Bluetooth USB Adapter 100 m	1	1	KDG0013
HVA data storage device with PC software	1	1	GZD5028
Extra Power-on key	1	1	KEC0007
HVA28 accessory bag	1	1	VKR0027
Carrying strap for HVA28 peli case	1	1	VS0002
HVA28 HV test lead 65kV TD 4 m 80 A with clamp	–	1	GH0584
HVA test lead external guard 4 mm - snap	–	2	KEK0126
Test lead 4mm 1,5 m black MFK15-1-150	–	1	KEK0127
Dolphin clip 32 A 4 mm Jack black	–	2	KE50021
HVA Guard connection DUT	–	2	KMS00064
Corona shield, min. clearance distance = 10 mm	–	2	KMD0081