



HVA SERIES VLF TEST SETS

Hipot Testers – HVA Series for VLF (0.1 Hz) testing
of MV and HV cables.



INNOVATIVE, RELIABLE, ECONOMICAL – HIGH VOLTAGE TESTING FROM b2 HIGH VOLTAGE

VLF cable testing is a standardized and contemporary process for determining the condition of cables in medium-voltage networks, since the older DC testing of aged extruded cables in many cases led to damage to the cable insulation, causing premature and unwanted loss of the cable.

For more than 12 years, b2 electronic GmbH has developed and manufactured VLF high voltage systems for testing and diagnostics, for power utilities and their supporting industries worldwide.



VLF, DC, cable sheath testing and sheath fault location

- Sinusoidal VLF output voltage up to 200 kV
- Squarewave voltage
- DC (\pm) voltages up to 200 kV
- Cable sheath testing / sheath fault location



Unlimited operating time

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

HVA SERIES VLF TEST SETS



HVA28 / HVA28TD



HVA34



HVA30-5 / HVA60

THE MOST INNOVATIVE, SAFEST, LIGHTEST AND SMALLEST – A CLASS OF THEIR OWN!

The compact design and the unmatched HV output power to weight ratio, are second to none in the market and make the b2 electronic high-voltage generators the lightest in all classes at all voltage levels. The most modern power electronics, numerous patents and innovative user interfaces help to secure this competitive edge.



Smallest and lightest VLF cable test sets

The VLF Hipot testers of the HVA series are the most advanced, smallest and lightest available (from 14kg).



Dry system – no oil-filled parts

The HVA test sets are dry type test systems (they have no oil filled components). This means less maintenance, compact and lightweight design and no limitation of operating time.



HVA54/80 / HVA90 / HVA94



HVA120 / HVA54-5

HVA – MORE BENEFITS

- Load independent, true symmetrical sinusoidal output over the entire power range
- Automatic load calculation and frequency selection (0.01 - 0.1 Hz)
- High output power
- RMS digital metering of voltage and current. Automatic measurement of R and C
- PC software "b2 Control Center" with various reporting functions included



HVA28 / HVA28TD – very bright and high-contrast colour display



DDD® – integrated electronic and mechanical discharge devices

Double safety! Additional mechanical discharge unit (in addition to the electronic discharge device) works as a back-up.



50 Hz – 12 kV Feedback Protection

Another safety feature for "Man and Machine" is a reverse voltage or transient protection up to 12 kV (except HVA30-5).



Upgradeable to Partial Discharge (PD) – and Tan Delta diagnostics (TD) systems

The HVA high voltage generators can be extended at any time to a cable diagnostics system. Generating a load independent, true symmetrical sinusoidal voltage allows an upgrade of an HVA test generator to a diagnostics system for Partial Discharge and or Tan Delta.

The HVA test generator serves as the HV source for these diagnostics systems from b2 electronic.



PD30-E

PDTD60-2



PC SOFTWARE "b2 CONTROL CENTER"

The PC software "b2 Control Center" provides various options for test results printing, data processing, data archiving or analysis, and custom test set program auto-sequences can be created and uploaded ("b2 Control Center" in scope of supply).



Solid HV connectors

Robust HV-connectors allow the use of different HV test lead lengths, the quick exchange for a replacement cable, or the simpler upgrade path for connection of diagnostic systems.





HVA28 / HVA28TD



HVA34



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HVA SERIES

b2 electronic GmbH offers a wide range of different VLF test generators. From portable and very robust generators, such as the HVA28, which weighs only 14kg, to very powerful systems for mobile test van applications, models are available with up to 200 kV test voltage. The designs of all b2 electronic VLF generators are based on the same scalable power electronics that have already been well proven in over 120 countries under varied environmental conditions.

	HVA28/TD	HVA34	HVA30-5	HVA54/80
Output Voltage				
- VLF Sinusoidal	28 kV, 20 kV _{rms}	34 kV, 24 kV _{rms}	33 kV, 23 kV _{rms}	54 kV, 38 kV _{rms}
- DC	± 28 kV	± 34 kV	± 30 kV	± 80 kV
- VLF Squarewave	28 kV	34 kV	30 kV	54 kV
Output Current _{max}	20 mA	15 mA	85 mA	65 mA
Output Load	0,5 µF @ 0,1 Hz @ 20 kV _{rms}	0,5 µF @ 0,1 Hz @ 24 kV _{rms}	3,4 µF @ 0,1 Hz @ 23 kV _{rms}	2,0 µF @ 0,1 Hz @ 38 kV _{rms}
max. Capacitance *	10,0 µF	12,0 µF	15,0 µF	10,0 µF
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			
DDD® – Dual Discharge Device	●	●	●	●
50 Hz – 12 kV Feedback Protection	●	●	○	●
USB / Bluetooth	● / ●	● / ○	● / ○	● / ○
Dimensions L x W x H (mm)	430 x 240 x 340 **	430 x 250 x 360	450 x 340 x 520	540 x 445 x 615
Weight	14 kg	19,5 kg	45 kg	127 kg

* at lower voltage and frequency

** Peli Case 1430



HVA54/80 / HVA90 / HVA94



HVA120 / HVA54-5

Redundant safety features such as dual discharge devices and integrated reverse voltage protection ensure optimal safety. The HVA high voltage generators are designed for continuous operation, are very easy to operate via rotary knob control interface and are extremely sturdy in design so as to meet all the requirements of field operation.

HVA54-5	HVA60	HVA90	HVA94	HVA120	HVA200
54 kV, 38 kV _{rms} ± 54 kV 54 kV	62 kV, 44 kV _{rms} ± 60 kV 60 kV	90 kV, 64 kV _{rms} ± 90 kV 90 kV	94 kV, 66 kV _{rms} ± 90 kV 90 kV	120 kV, 85 kV _{rms} ± 100 kV 100 kV	200 kV, 138 kV _{rms} ± 200 kV 200 kV
160 mA	40 mA	65 mA	65 mA	60 mA	65 mA
5 µF @ 0,1 Hz @ 38 kV _{rms}	1 µF @ 0,1 Hz @ 44 kV _{rms}	1 µF @ 0,1 Hz @ 61 kV _{rms}	0,75 µF @ 0,1 Hz @ 66 kV _{rms}	0,5 µF @ 0,1 Hz @ 85 kV _{rms}	0,5 µF @ 0,1 Hz @ 138 kV _{rms}
15,0 µF	10,0 µF	10,0 µF	10,0 µF	10,0 µF	5,0 µF
AC (VLF) Symmetrical and load independent across full range, DC (plus or negative polarity), Burn / Fault Condition or Fault Trip Mode, Jacket / Sheath Testing					
●	●	●	●	●	○
●	●	●	●	●	○
● / ○	● / ○	● / ○	● / ○	● / ○	● / ○
863 x 445 x 611	450 x 340 x 520	540 x 445 x 615	540 x 445 x 615	790 x 445 x 740	Flex set-up
175 kg	57 kg	127 kg	127 kg	181 kg	850 kg

b2 electronic GmbH with its business division b2 High-Voltage is an internationally operating company, which develops, manufactures and distributes practically oriented high voltage equipment for simple cable testing, cable diagnostics and onsite oil testing.

Several decades of development experience in the field of test engineering, a profound understanding of the needs of energy suppliers and the will for improvement, equip the company with the skills required for lasting success.

Systems by b2 are benchmark worldwide for innovation, low weight, compact dimensions and usability and prove themselves with energy suppliers all over the world.

b2 is in a constant dialog with its customers, collects their suggestions and needs, matches them to b2 visions and develops new product ideas out of that.

By an active, certified quality management along the entire business process, b2 ensures in the implementation of its ideas the maximum customer satisfaction possible.



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