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 (±) 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**

**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.

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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.
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).

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

HVA54/80 / HVA90 / HVA94
HVA120 / HVA54-5

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

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.
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.

<table>
<thead>
<tr>
<th>Model</th>
<th>Output Voltage</th>
<th>Output Current max</th>
<th>Output Load</th>
<th>max. Capacitance</th>
<th>Output Modes</th>
</tr>
</thead>
<tbody>
<tr>
<td>HVA28/TD</td>
<td>28 kV, 20 kV rms</td>
<td>20 mA</td>
<td>0.5 µF @ 0.1 Hz @ 20 kV rms</td>
<td>10.0 µF</td>
<td>AC (VLF) Symmetrical and load independent across full range, DC (plus or negative polarity), Burn / Fault Condition or Fault Trip Mode, Jacket / Sheath Testing</td>
</tr>
<tr>
<td>HVA34</td>
<td>34 kV, 24 kV rms</td>
<td>15 mA</td>
<td>0.5 µF @ 0.1 Hz @ 24 kV rms</td>
<td>12.0 µF</td>
<td></td>
</tr>
<tr>
<td>HVA30-5</td>
<td>33 kV, 23 kV rms</td>
<td>85 mA</td>
<td>3.4 µF @ 0.1 Hz @ 23 kV rms</td>
<td>15.0 µF</td>
<td></td>
</tr>
<tr>
<td>HVA54/80</td>
<td>54 kV, 38 kV rms</td>
<td>65 mA</td>
<td>2.0 µF @ 0.1 Hz @ 38 kV rms</td>
<td>10.0 µF</td>
<td></td>
</tr>
</tbody>
</table>

* at lower voltage and frequency
** Pull Case 1430"
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.

### Technical Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Voltage (kV)</th>
<th>Current (mA)</th>
<th>Capacitance (μF)</th>
<th>Dimensions (mm)</th>
<th>Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HVA54-5</td>
<td>54, 38 kV rms</td>
<td>54, 38 kV</td>
<td>160</td>
<td>863 x 445 x 611</td>
<td>175</td>
</tr>
<tr>
<td></td>
<td>± 54 kV</td>
<td>± 60 kV</td>
<td>1 μF @ 0.1 Hz</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HVA60</td>
<td>62, 44 kV rms</td>
<td>60 kV</td>
<td>10,0 μF</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>± 60 kV</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HVA90</td>
<td>90 kV</td>
<td>90 kV</td>
<td>10,0 μF</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>± 90 kV</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HVA94</td>
<td>90 kV</td>
<td>90 kV</td>
<td>0.75 μF @ 0.1 Hz</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>± 90 kV</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HVA120</td>
<td>120 kV, 85 kV rms</td>
<td>65 mA</td>
<td>0.5 μF @ 0.1 Hz</td>
<td>790 x 445 x 740</td>
<td>181</td>
</tr>
<tr>
<td></td>
<td>± 100 kV</td>
<td>65 mA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HVA200</td>
<td>200 kV, 138 kV rms</td>
<td>60 mA</td>
<td>5.0 μF @ 0.1 Hz</td>
<td>850 kg</td>
<td></td>
</tr>
<tr>
<td></td>
<td>± 200 kV</td>
<td>65 mA</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

AC (VLF) Symmetrical and load independent across full range, DC (plus or negative polarity), Burn / Fault Condition or Fault Trip Mode, Jacket / Sheath Testing

Please find detailed technical specification at [www.h2hv.com](http://www.h2hv.com)
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.

www.b2hv.com