VLF-30-90

30 – 90 kV Very Low Frequency (VLF) AC Hipot Test Sets

Six 30 – 90 kV peak VLF hipot test sets on one split-system platform — choose the voltage rating, keep the same controller, waveform and reporting.

Output voltage range	**30 – 90 kV (peak)**	Measurement accuracy	**± 3 % of reading**
Output current	**0 – 30 mA (peak)**	Controller weight	**4 kg**
Output frequencies	**0.1 / 0.05 / 0.02 / 0.01 Hz**	HV tank weight	**20 – 55 kg**

MODEL SELECTION MATRIX

	VLF-30	VLF-40	VLF-50	VLF-60	VLF-80	VLF-90
Maximum output voltage (peak) (kV)	0 – 30	0 – 40	0 – 50	0 – 60	0 – 80	0 – 90
Output current (peak) (mA)	0 – 30	0 – 30	0 – 30	0 – 30	0 – 30	0 – 30
Output frequencies (Hz)	0.1 / 0.05 / 0.02 / 0.01	0.1 / 0.05 / 0.02 / 0.01	0.1 / 0.05 / 0.02 / 0.01	0.1 / 0.05 / 0.02 / 0.01	0.1 / 0.05 / 0.02 / 0.01	0.1 / 0.05 / 0.02 / 0.01
Duty cycle	Continuous	Continuous	Continuous	Continuous	Continuous	Continuous
Measurement accuracy	± 3 % of reading	± 3 % of reading	± 3 % of reading	± 3 % of reading	± 3 % of reading	± 3 % of reading
Voltage peak error	≤ 3 %	≤ 3 %	≤ 3 %	≤ 3 %	≤ 3 %	≤ 3 %
Controller unit weight (kg)	4	4	4	4	4	4
High-voltage tank (booster) weight (kg)	20	40	40	50	50	55
Operating temperature (°C)	−10 … +50	−10 … +50	−10 … +50	−10 … +50	−10 … +50	−10 … +50
Storage temperature (°C)	−20 … +70	−20 … +70	−20 … +70	−20 … +70	−20 … +70	−20 … +70
Humidity	≤ 85 % RH	≤ 85 % RH	≤ 85 % RH	≤ 85 % RH	≤ 85 % RH	≤ 85 % RH

All six models share the same controller, output current, frequencies, duty cycle, accuracy and environment ratings — they differ only in maximum output voltage and high-voltage tank weight. Choose the lowest voltage rating whose test level covers the cable classes you test.

SPECIFICATIONS

Output

Output AC voltage (peak, sinusoidal)	**30 – 90 kV**
Output current (peak)	**0 – 30 mA**
Output frequency	**0.1 / 0.05 / 0.02 / 0.01 Hz sinusoidal**
Duty cycle	**Continuous**

Measurement Accuracy

Measurement accuracy	**± 3 % of reading**
Voltage positive / negative peak error	**≤ 3 %**

Mechanical

Controller unit weight	**4 kg**
High-voltage tank (booster) weight	**20 – 55 kg**
Design	**Two-piece split system (controller + HV tank)**

Power Supply & Environment

Power supply	**AC 220 V / AC 230 V, 50/60 Hz, or AC 120 V, 60 Hz**
Operating temperature	**−10 … +50 °C**
Storage temperature	**−20 … +70 °C**
Humidity	**≤ 85 % RH**

KEY FEATURES

Compact split design for field mobility — Control unit of 4 kg plus a high-voltage tank of 20 – 55 kg depending on the voltage rating — a two-piece system handled by two technicians.

True sinusoidal VLF waveform — Polarity reverses every half cycle like power-frequency AC, giving a space-charge-free stress appropriate for XLPE and EPR insulation.

Four output frequencies — 0.1 / 0.05 / 0.02 / 0.01 Hz let the operator trade test time for reach on high-capacitance cable sections.

30 – 90 kV peak with 30 mA output — Delivers the rated 30 – 90 kV peak output at up to 30 mA peak current on a continuous duty cycle.

Automatic IEEE 400.2 assessment — The 7-inch touch-screen controller judges results against IEEE 400.2 criteria automatically.

Built-in thermal printer & storage — Results are saved internally and printed on site, producing field documentation without an external PC.

No PC required — Complete test setup, execution and reporting are handled locally from the touch screen.

Partial discharge diagnostics on the TD models — The VLF-PD34 adds partial discharge detection and fault localization to the VLF-34TD and VLF-45TD. The AC-only VLF-30 to VLF-90 sets run withstand testing without PD measurement.

TYPICAL APPLICATIONS

- Routine & maintenance withstand testing — Periodic VLF proof testing of shielded distribution cable insulation.
- Post-installation / post-repair verification — Confirming cable circuits and joints after installation or repair work.
- Contractor handover checks — Quality verification of new cable installations by contractors and utilities.
- Space-restricted sites — Substation bays, manholes and tunnels where a truck-mounted test set cannot reach.
- Industrial & utility plants — Cable reliability and preventive-maintenance programs.

Specifications subject to change without notice; confirm critical parameters at order. Calibration records on request.