HVI - The World's Source for High Voltage Test Equipment

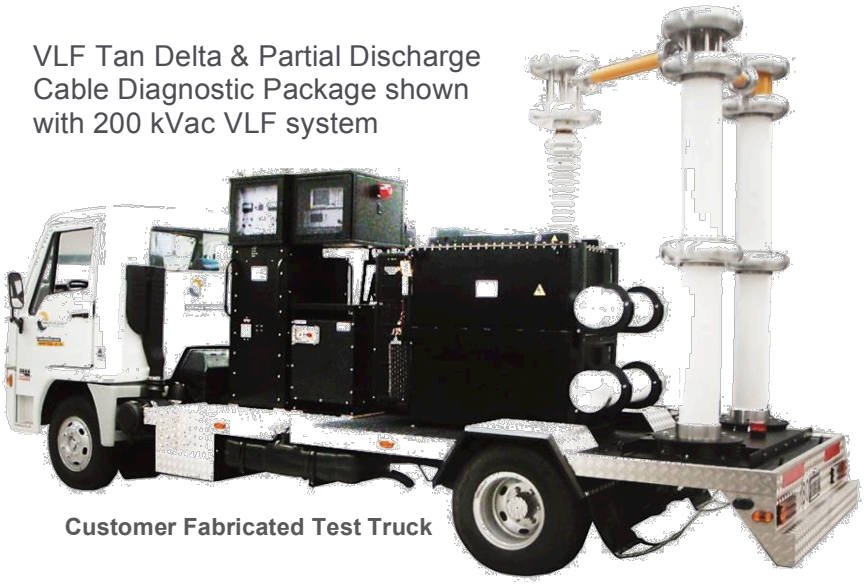
Advanced test equipment for high voltage proof and preventive maintenance testing of electrical apparatus hvinc.com

# 200kV VLF

VLF-200CMF IN SERVICE SINCE **2002***
TIME TESTED - PROVEN RELIABILITY

## AC Withstand | Tan Delta | Partial Discharge

VLF Tan Delta & Partial Discharge Cable Diagnostic Package shown with 200 kVac VLF system



Customer Fabricated Test Truck

HV Tank & Controller/Regulator

## VLF-200CMF Ratings

| | |
|---|---|
| **Voltage Output:** | 0 - 200 kVac peak, sinusoidal at all output frequencies |
| **Voltage Input:** | 230 V @ 80 A peak, 40 A average, single phase (no 3Φ required) |
| **Load Capacitance Rating:** | 0.75 µF @ 0.1 Hz, 1.5 µF @ 0.05 Hz, 3.75 µF @ 0.02 Hz |
| **Size & Weight Controller:** | 24" w x 30" d x 62" h, 750 lbs. 61 cm x 76 cm x 158 cm, 341 kg |
| **Size & Weight HV Tank:** | 60" w x 37" d x 87" h, 3300 lbs. 152 cm x 94 cm x 221 cm, 1497 k |
| **Area/Footprint:** | Controller: 5 sq.'/.46 sq. m HV Tank: 15.4 sq.'/1.4sq. m, ***very compact*** |

## Testing Capabilities for Various Cables

| Cable kV Rating | VLF Output | Cable Uo pk | Test V Peak |
|---|---|---|---|
| **115/66** | 200 kV ÷ | 93 kV | = 2.15 Uo |
| **138/80** | 200 kV ÷ | 113 kV | = 1.77 Uo |
| **150/87** | 200 kV ÷ | 123 kV | = 1.62 Uo |
| **220/127** | 200 kV ÷ | 180 kV | = 1.11 Uo |

**Example: 138 kV XLPE, 1000 mcm: 50 pF/ft. or 164 pF/m**

**0.75 µF @ 0.10 Hz.** = 14,000 ft/**2.5 miles** or 4,270 m/**4.3 km**
**1.50 µF @ 0.05 Hz.** = 28,000 ft/**5.0 miles** or 8,534 m/**8.5 km**
**3.75 µF @ 0.02 Hz.** = 70,000 ft/**13 miles** or 21,300 m/**21.3 km**

If all three phases are tested at once, the cable length must be 1/3 of the above, as the capacitances are additive

The VLF-200CMF can perform Withstand and TD/PD diagnostic testing on cables rated up to ~150 kVac. Refer to IEEE 400.2-2013 for cable testing standards and recommendations for high voltage cable testing.

* The VLF-200CMF has been used in over 15 countries. All HVI VLF Products together operate in over 130 countries.

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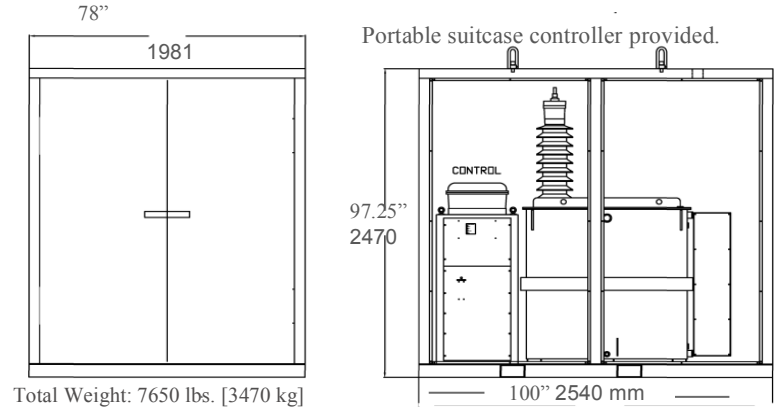
All HVI Products are **MADE IN THE USA**

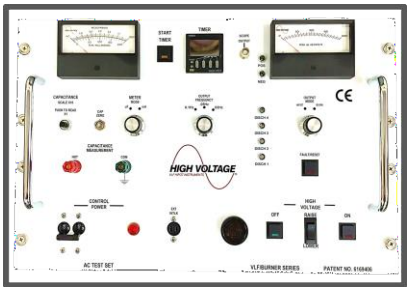
### HVI built trailer with opening top & 20 kW generator


### The below design includes a PD & TD cable diagnostic testing package

**(customer fabricated test truck)**

### Custom HVI Cabinet with Opening Top




**Control panel is mounted on 6' cabinet or a remote field box is available**

**HVI has been here since 1997** with proven and reliable products, extensive application knowledge and test support, and a strong commitment to excellence in all areas.

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Three Generations of Experience. All HVI Products are MADE IN THE USA.

**HVI is an ISO 9001- 2015 company · HVI's VLF technology is protected under US Patent # 6,169,406**

## A Quick Look Back: HVI VLF product developments spark world interest and use in VLF

In **1997**, HVI revolutionized the industry with its patented VLF, the first VLF design that **offered truly portable and affordable models**, in ratings from 30 kVac to 120 kVac. There was finally a practical and easy to use VLF available.

HVI Founder Stan Peschel with his original 1997 VLF 40 kVac, 1.1 µF @ 0.1 Hz

In **2002**, HVI introduced the highest voltage VLF: **0 - 200 kVac peak**.

HVI offers 11 models from **30 kVac - 200 kVac** in both our original, conventional oil immersed linear power supply design, the VLF Series, and in our solid state, menu driven models with custom PC software for complete wireless control for operator safety, data collection and reporting, the VLF-E Series. **Your choice**: simple, easy to operate and service and with familiar controls, or, all electronic, programmable with data capture, and wireless control.

In **2016**, the **E-Link Software** package was introduced, offering the most complete VLF and Tan Delta testing platform, with remote control, full data management, and much more when used with our **E Series** models.

HVI model VLF-34E
0-34 kVac, 0.5 µF @ 0.1Hz
solid state, E-Link software

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