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## MV, HV, EHV Circuit Breaker Testing

Our state-of-the-art test equipment from DV Power supports a wide range of critical testing applications for Medium Voltage (MV), High Voltage (HV), and Extra-High Voltage (EHV) circuit breakers.

## Power Transformer Test Equipment

From advanced Turns Ratio test sets to dynamic OLTC graphic test sets, our test equipment from DV Power ensure unparalleled accuracy and efficiency in transformer maintenance and analysis. Hipotronics historical, yet modern HiPot's & transfo oil dielectric tester.

## SF6 Gas Quality Testing & Treatment

SF6 gas testing, handling, and purifying with our cutting-edge solutions from Enervac and RH Systems set the standard for precision and efficiency. Synecom adds lower cost analyzer and on-line SF6 treatment.

## Battery Bank Testing

Ensure that you can conduct thorough and accurate assessments, complying with NERC standards and optimizing the performance and longevity of your battery banks.

## Substation Reliability, Cable PD, Ground Grid, CT/PT, Apparatus Monitoring

Backed by local US support and repair services, maximize your substation's performance and reliability with our testing and survey equipment, tailored to meet the demands of modern power systems.

## HD Corona Cameras & Infra Red HD Cameras

CoroCAM by UVIRCO Technologies offer unmatched precision in detecting corona discharge in substations, transmission lines, and insulators. FOTRIC offers superior IR imaging with advanced software.

### Sales

Unparalleled Precision  
Equipment and Solutions

### Calibration

Ensuring Accuracy  
and Compliance

### Repair

Expert Technicians for  
Optical Performance

### Training

Empowering Through  
Knowledge and Skills

**MV, HV, EHV Circuit Breaker Testing** for Timing & Travel, Micro-ohmmeter for contacts (“Ductor”) and bus joints. Now with dynamic resistance and First Trip ability. CB Coil testing and CB power for commissioning.

**Lightweight Portable micro-ohmmeters,**

TRUE ripple-free DC, Lightweight cables, 100A to 800A versions. RMO-200G most popular in US.

Both Sides Grounded safety feature!

New 300A version for US standard **Ground Grid integrity** test.

Test CB’s when no DC available. **Power Supply** for CB Coil Testing for low DC Volt operability and CB commissioning. POB40AD.

SAT40A also Measures coil resistance and interfaces with CAT software for flexible situation testing.



**New! RMO-H22** low cost (<\$7K) handheld micro-ohmmeter. Up to 300 AMPS TRUE DC, ripple free current. Battery powered. Uses hi-energy Li-Po technology, weighs 2 lbs. Leads up to 33ft.



DV Power advances **portable test for CB’s**. CAT-H handheld 3ph CB timer w coil control built-in, **off-line test**. CAT-P model adds First Trip **on-line test**. Both lightweight with clear useful displays and archiving PC software. DV-Win.



All DV Power products carry a 3 year warranty and are serviced in Florida

## MV, HV, EHV Circuit Breaker Testing



CAT100 w 8 hr. battery



CAT250 w 10" display. Printer option



CAT500 is most advanced

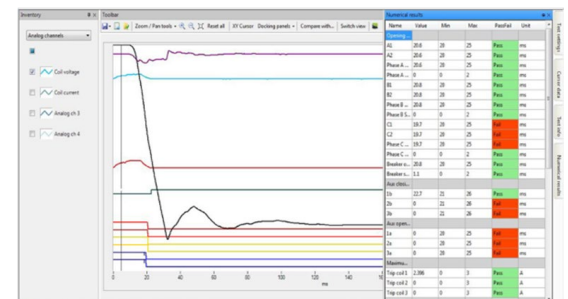
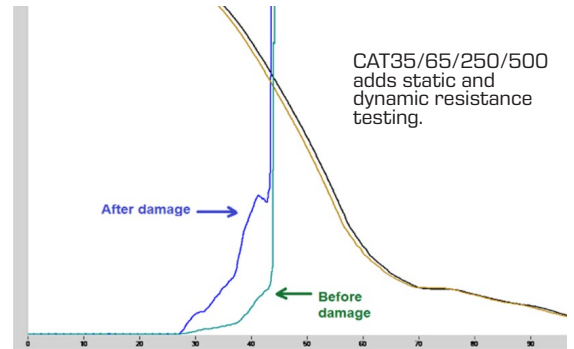
CAT series of low cost **Breaker timing/motion analyzers**. 3, 6 or 12 timing ch.

Models from \$13K to \$35K

CAT hi-performance series add **DRM** ability and higher channel count. Both Sides Grounded test option. Built-in 200A Micro-ohmmeter on some models.

Pre-insertion resistor (PIR) measure and graph.

**Free PC software and free upgrades.**



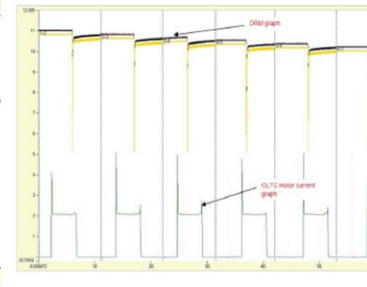
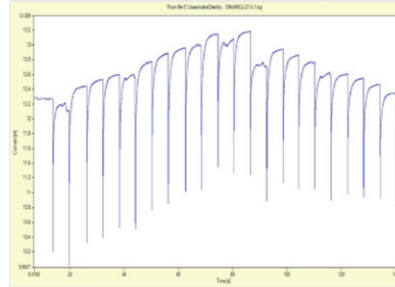
Sample of full timing/motion capture with pass/fail limits. Save as pdf, .xlsx, or .docx





DV Power's newest Diagnostic tester (**TWA-400**) for 3 phase fast **winding resistance** test, 7" display, inter-active **graphic dynamic OLTC test** (aka **LTC-DRM**) and **Auto-Demag** function. TRUE 3 phase source for convenient and simultaneous H and L side testing, an industry first!!! Same leads can be used for TRT63A or TRT400 for true 3 phase TTR measurements on same transformer. New **auto-tap-step** feature! Lower cost model **TWA-25A** available as best six phase Winding Resistance Tester in US market. One climb for connection to all six phases. Effective, safe **De-Mag** included.

Transformer **TTR** for **true 3 phase** turns ratio testing. Fully automatic, measures turns ratio, phase shift, excitation current and auto-detects vector groups to verify nameplate vs windings. Three phase generate and three phase measure. PC software incl. Displays accurate phase readings, other TTR's cannot. Same cable set as TWA-400 for convenient 3 phase testing. TRT400 has 1, 8, 40, 100, 250, 430 VAC ranges for CT thru to largest power transformers. **Auto-tap-step** control/measure thru OLTC taps lets PC do the work.



Top of the Line...  
TWA500 and  
TRT500



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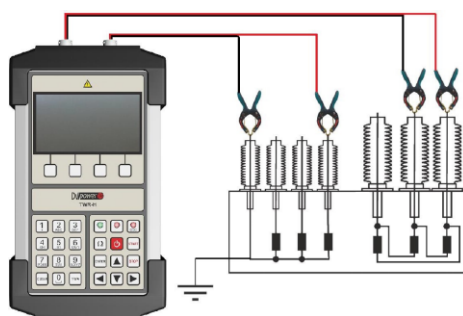
# Power Transformer Testing Equipment



Transformer **Winding Resistance** Tester (RMO-60TD) up to 60A and 60V of drive for fast testing of even largest power transformers. 60TD includes effective **single phase (LTC-DRM) dynamic graphic timing and resistance of OLTC's and regulators** and built-in Tap Changer control. Includes safe **Auto-DeMag** feature plus std auto-discharge and new auto-tap-step for easy OLTC test. PC software is no extra charge.



(DEM-60R) Stand-alone 3 phase Automatic One-Touch **De-Magnetizer** for any size Power Transformers. SAFE. SIMPLE. Auto-step-down method ensures full de-mag. Measures core flux (new!).



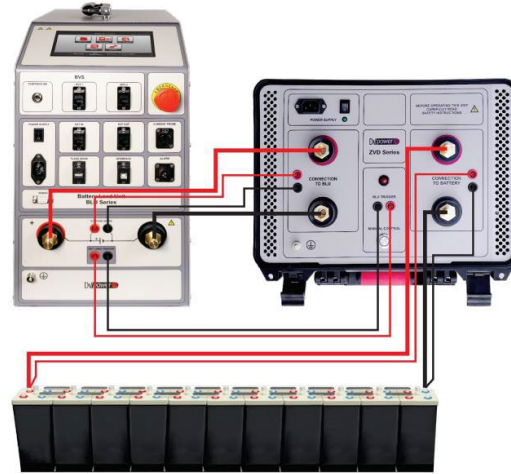
New! Combo winding resistance, turns ratio, polarity, excitation current tests in one box. Model **TWR-B** on left below is 3ph version with one time connection to 3ph transformer. ACV to 250V, DCV to 50V, DC to 25A. All tests performed automatically as a sequence. Auto control of Tap Changing for lo-res OLTC-DRM. Built-in battery... Auto **Demag** function. Model **TWR-H** on right below unique handheld instrument. Measures turns ratio, winding resistance of a single phase then does demagnetization. TRT up to 40VAC. WRT with 10A for LV side and 2A for HV side.

TEST those substation battery banks without damaging them! Simple voltage monitor with constant current load-test competency, via discharge testing with auto-scanning. BE ready for NERC and ensure that last line of defense, "DC" for control, is still intact. Flooded, VRLA, NiCad or Li ION applications.

DV Power **DC loads**  
BLU and BLU-T series  
0.9-500 VDC, over  
42 KW input on some  
models. Settable  
limits for low volt level,  
A-H accumulated or  
time expiry. Graph  
report. <32 lbs. aka  
'capacity test'".



BAC25, DC **Battery Charger** to augment the permanent battery charger to speed up bank recharge times and reduce wait time to full back-up energy.



New ZVD-80 for full discharge to 0V then shorted, for Battery recycling.

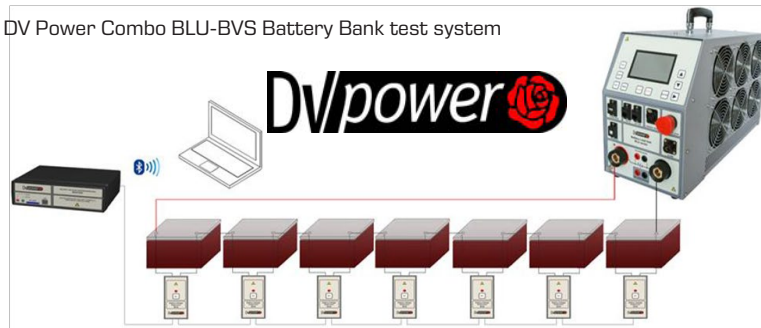


DV Power's BVR-22 for manual cell by cell testing, Use as routine bank **voltage test** or alongside BLU during capacity test to identify the weak cells.

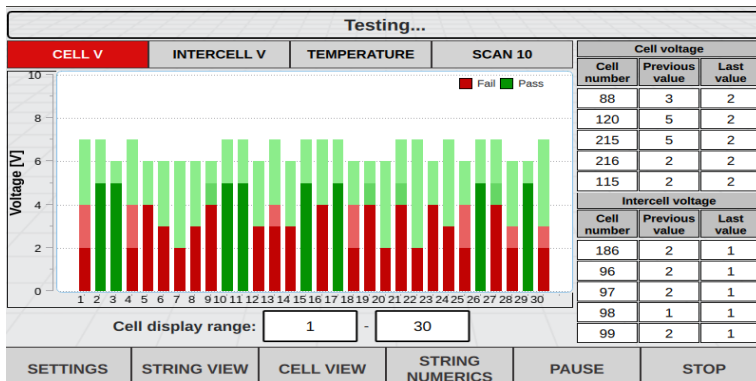


## Battery Bank Test Equipment

All DV Power products carry a 3 year warranty and are serviced in Florida



BVS **cell by cell scanner** system can be used with DV Power BLU loads or as stand alone monitor or with other suppliers loads. New firmware permits proper analysis of even NiCad energy dissipation. **New quad** cell modules reduce cost by over 35% and reduces cabling.



**Advanced BLU C** series of electronic DC loads. Large 7" display, option to drain battery down to 0V prior to recycling w ZVD-80 accessory.

'No crouch' form factor. Integral cell by cell scanner control, no PC required. Models up to 1300VDC and 42KW. Under 46lbs.

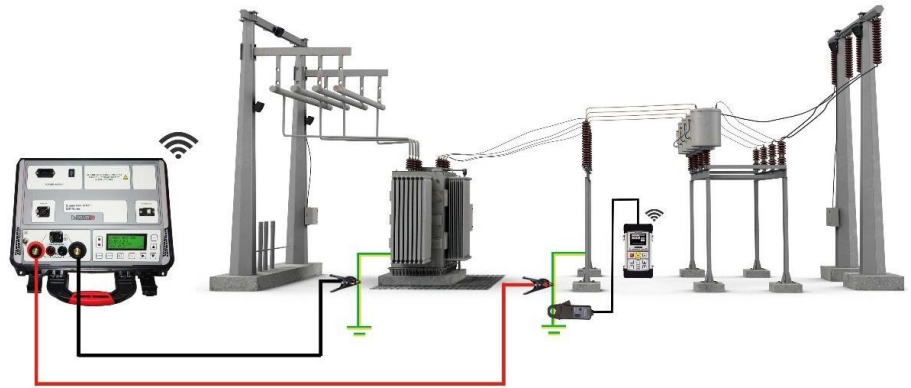




**CVA500 CT/PT/CVT test set, new for 2024!**

Multi-tap (up to 5 taps) CT tester with built-in tap interface. Up to 2KV output to secondary of CT. Turns ratio, polarity, excitation current, phase angle and auto CT knee point (IEEE 30 deg. and 45 Deg.)

Winding resistance (up to 6A DC), insulation resistance, Burden w ACV or ACI, Demagnetization when all tests done. **Auto tests sequence** and Flexible test reports and **free PC software**.



Test substation **GROUND GRID integrity** with this specially modified 300AMP micro-ohmmeter. DV Power model GGT300 was developed in conjunction with a USA utility to provide portable, rugged test set to follow this accepted effective procedure. Finds defective grid points due to corrosion, vibration, bad cable welds, loose clamps or poor apparatus ground connection leads. GGT200 also available. One or two operator versions.

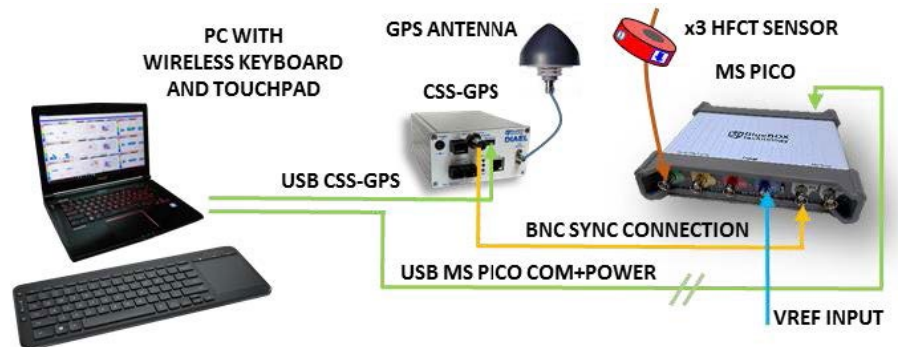
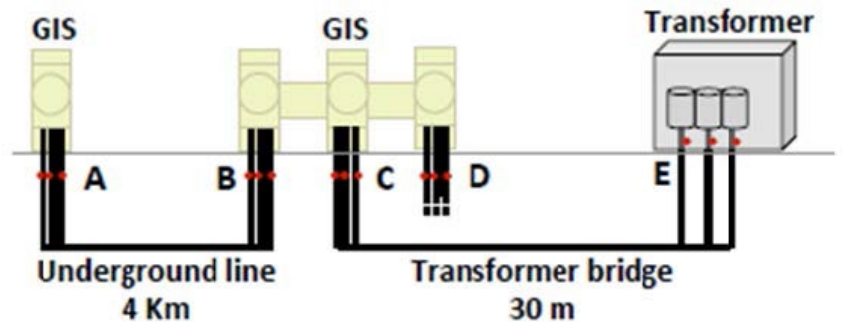


**Substation Reliability**  
Cable PD, Ground Grid, CT/PT



Effective PD monitoring and test key, is the patented noise reduction software by Ampacimon. 3D clustering simplifies PRPD analysis from 3 different sensor types at the same time permit accurate verification of PD in transformers, vs false alarms and chasing noise. HF(HFCT)-UHF (TEV)-UHF (antenna) sensors by Ampacimon. Automatic PD mapping does fault location within HV underground cables, with HF sensors and GPS. Systems available for temporary test, short term monitoring, long term monitoring and on line analysis. (aka Blue Box Technology by DIAEL).

Ampacimon's MS-Pico model is useful for PD location in HV underground cables as a spot test or short term monitor. One test setup as above at either end of up to a 5 mile long cable can locate PD quite accurately. Starts, \$18K



Comprehensive, Most Versatile, **Electrical Asset Condition Monitoring** with advanced Sensors, Monitors and Remote Monitoring Software. For Transformer, GIS, AIS and MV panel switchgear. Upgrade, replacement or new monitoring installation.

Monitor Hot Spot Temperature, Partial Discharge, Bushing (Tan Delta and Capacitance), OLTC Contact Wear, Cooling System and integrating Dissolved Gas Analysis and S<sub>f</sub>6 gas sensors.

**RM Eye condition monitoring software** for health index, risk index, with custom dashboards and SCADA interface.



Fiber optic temperature sensor interface (standalone)



## Electrical Asset Condition Monitoring Insulated Tools

Rugged, very rugged, insulated tools for live line work, using unique nylon bio-plastic injection molding process. Lifetime warranty. Insulation will not burn or fall off from temperature change.

Multiple kits available or individual tools. Stock in NC, USA. Simply the hardest wearing and safest tools one can buy. All tools are tested 100%. Operating range -40 deg F to 158 Deg F.



### THE ULTIMATE IN ELECTRICAL AND LIVE LINE PROTECTION

ITL manufactures unique, injection moulded insulated tools from Nylon Thermoplastic. All our tools are 100% tested to IEC60900, Category C and ASTM F1505. All over the world the professional uses ITL Insulated Tools.





The Hipotronics range of Hipot testers provide modern solutions for AC and DC testing in the lab or field. Our rugged, portable Hipot testers feature automated test capabilities to improve test time and accuracy.

Wide range available for AC or DC for insulation test. Also cable fault locators using high energy. To use AC or DC, ask us for best solution!

Models 840PL-HD (40kV) 880PL-HD (80kV) **DC** outputs with robust design and modern display of voltage and current to test **insulation strength** of electrical apparatus. Multiple measurements including output voltage, leakage current, insulation resistance (IR), and polarization index (PI)

OC60-DI **Liquid dielectric tester** up to 60kV **AC**, rugged, reliable and portable. Test cells available for ASTM D877 and ASTM DD1816. 7" digital color display screen. Automatic breakdown detection within 4 usec of breakdown point. 90kV version also available.

HVT-DI series, **AC Hipot testers** – 30kV, 60kV and 100kV for bucket trucks, aerial platforms, vacuum interrupters, breakers, switchgear and other electrical apparatus. Lightweight, rugged design and 7" digital color display.



# HIPOTRONICS

A wide range of portable and lab testers are available

# AC or DC For Insulation Test



HVT-DI A

The HVT-DI AC Hipot is a modern solution for testing insulation strength of electrical apparatus. Outfitted with state-of-the-art digital interface, and extensive safety features, the HVT-DI series ensures simplistic operation, the most accurate results, and operator safety under all circumstances.



OC60-DI

The OC60-DI is HIPOTRONICS' modern response for quick and reliable testing of dielectric strength of insulating liquids used in a wide variety of electric apparatus. It is an automatic liquid dielectric breakdown test equipment with user-friendly digital interface capable of testing up to 60kV AC.

## High Voltage Testers

Hipotronics supplies a wide range of high voltage electrical testing equipment for applications like arresters, bushings, cable and wire, capacitors, generators and more. Finding the right solution to for high voltage testing can be a challenging task.

With Hipotronics' dielectric test equipment, DC systems and partial discharge test systems, there is a solution that addresses your needs and provides reliable and accurate results for the application. Increase safety and minimize risk with high voltage test equipment from our team. Technical service and support is available when and where you need it most.

RH 973-SF6 analyzer or SF6 purity and **ultra-accurate** dewpoint (moisture content) via chilled mirror technology, plus SO2 plus convenient **recovery and pumpback of test sample**.

Minimizes user frustration getting stable, repeatable readings which can save the sf6 gas owner big money. AC or batt. Universal and custom **fittings kits** available for testing or filling. **Supported 100% by RH in Arizona**

**RH** systems



**Adapter kits** for RH and others



## SF6 Gas Recovery, Filling and Drying



Enervac's **GRU-7** and **-8** are SF6 gas carts for recovery rates of 28 kg (62 lb.) 17cu.m. /hr & 40cu.m. /hr and are suitable for vacuum recovery, filling and drying of gas for up to **115KV and above** breakers. Particle removal filters included. Model **736A** for **maximum** Sf6 cart performance up to 500KV use. Modern graphic HMI and flexible on-board storage and trailers.



GRU-4



**RH** systems

## SF6 Gas Quality Testing

### Transformer Oil De-Gassing & Drying

**EnerDry** for Transformer oil, is a **temporary** cost-effective solution to reduce moisture in power transformers while a full re-build or replacement is planned.

- Removes moisture from transformer oil and insulation.
- Maintains low moisture levels in transformer oils in service.
- Able to dry transformers not braced for vacuum.
- Safety system – isolates itself in case of alarm or power failure.
- No paper filters utilized.



Runs at 2.3 gpm to eliminate any turbulent flow into the transformer. Can reduce 100ppm moisture down to 10ppm and maintain that level unattended, plus does fine filtration to 1 micron. The maximum continuous purification capacity shall be 135 gph - **EnerDry 150**. Optional high flow package: 270 gph - **EnerDry 300**

Mini-dehydrator / degas oil up to 60 GPH. Priced under \$19K.

Wide range of std and custom transformer insulating **oil de-gassing & drying** systems. Uses high vacuum process to reduce water to less than 10ppm. Also modern **regen** systems get oil to better than virgin oil.



Enervac model E865A-1200 (1200 gph) oil purification processor shown in a dual axle cargo trailer.



New portable **SF6 3in1 test set**. Easy-field-swap calibration modules to minimize down time for cal. Using unique ceramic sensor design for better moisture measurement accuracy than others in same price range. Measures H2O, Purity and SO2 decomposition with gas storage and pumpback feature to minimize losses to the environment. Mounted in rugged plastic transport case with space for adapters. 24/7 phone support.

Unique innovative ACTIVE system being ideal for: **full Recycling of SF6 gas** contained in all equipment sizes.

Equipment under test can be in live operation.

- Designed to Dehumidify, Dedust and Eliminate the acid substances
- Full gas Recycle according to standards both when the plant is operating and while shut down
- Plug & Play filter substitution

Various size gas recovery and treatment SF6 carts : Air Vacuum, Recovery, Refill and Filtering of SF6 gas, also simultaneous mode operation.

SF6 gas filling control systems also available.



“ACTIVE” Car 108-01



Various size gas recovery and treatment SF6 carts

# SF6 Gas Test, Recovery, and Treatment



ALY101-05 SF6 Gas Analyser

Different measurable parameters to verify the purity of the gas according to the CEI EN 60480: SF6 SO2 CO H2S HF and dew-point. Accurate and quick analysis



CAR101-01

Available in multiple versions to meet all equipment size needs. Ideal for recovery in medium and high voltage AIS. Recovery from equipment up to a pressure of less than 1 mbar abs (in compliance with CEI EN62271-4)



CAR109-02

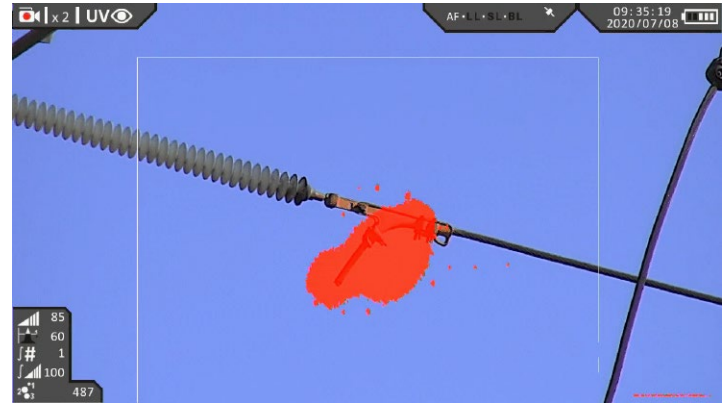
Portable SF6 Compressor is a portable module consisting of a dry compressor. It is a compact and easily transportable module that ensures the filling of a compartment thanks to a dedicated circuit.

**CoroCAM Hi-Performance Corona Imagers** with new CC6HD for clear UV and visual overlays like CC7HD model. CC8HD model adds hi-res **thermal images**. Synchronized UV & Visible Zoom from 1x up to 4x, High sensitivity detector, which detects ultra-low UVc emissions to show the smallest corona discharges. Wide angle viewing, Fast 6 sec boot. Wide dynamic range, Best IFOV, UV Gain, threshold or integration can be set to optimize the resulting image. Flexible display with sunshield for best daytime viewing, 4.5 hour batt life (locally available batts). GPS, Bluetooth and SDRAM std.



CC7HD

CC8HD



Zoom on corona blob



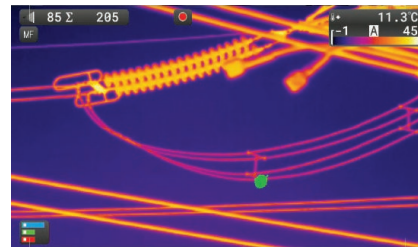
## Portable Corona Imagers with Thermal Options

Drones sold by ProgUSA are USA made and are ideal for imaging surveys and carrying UViRCO cameras or other payloads up to 5.5lbs. Typical models can have flight time up to 40 minutes, and have integrated power supply, gimbal mounts and controllers. The revolutionary UViRCO model UVs1 with HD corona imaging shown here weighs a mere 1.6 lbs, plus gimbal mount and measures 4.3" W x 2.7" H x 5.3" D. UVs1+1 model adds thermal imaging as well. Taking advantage of "co-location" of VIS,UV and IR.

CC6HD



CC7HD



UVs1



CC8HD-UAV





FOTRIC P-series **Industrial thermal imagers** offers up to 1280 x 1024 IR Resolutions, exceptional image quality, and precision for inspection work. With an optional Dual-view Lens, you won't need to carry or change lenses, saving time and space. The P-series cameras boast top-class performance with <30mk Thermal Sensitivity.

Up to 1280 x 1024 IR resolution. Covers 100% sRGB colors. Compelling image quality with Thermal White Balance and IRedge imaging algorithm. 13 MP digital optical camera for dynamic visual image quality.

Interchangeable lens on a 40-level rotary axis, provides the finest flexibility as well as stability. Common dual Field of view 25 deg and 7 deg telephoto lens or individual FOV lenses. P7 model ideal for electrical apparatus viewing with sharp 640 x 480 IR resolution view, 5" display and 128 GB SD memory card. Two year warranty with service in San Jose, CA.

Powerful software- NaviTR for revolutionizing routine inspections. And Object identification and automatic diagnosis using AI.

**New combo thermal and acoustic camera – Coming Soon!**



FOTRIC P7

## FOTRIC

Defect detection, condition monitoring, and safety assurance

## Premium Thermal HD Cameras for Industrial Safety Applications



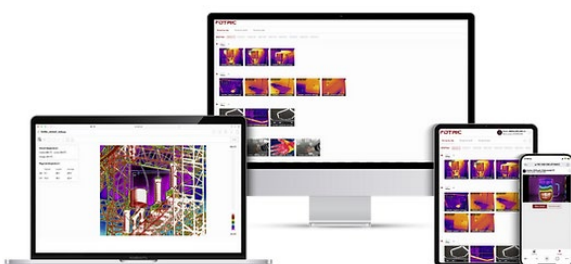
### Comprehensive Thermal Analysis Options


Utilizing suitable image analysis and reporting software can have a transformative impact on your business. It simplifies problem understanding for customers and instills trust in the effectiveness of your solutions.

FOTRIC NaviTiR System is an **AI-infused** digital upgrade from the traditional thermal camera. It perfectly assists thermal inspectors on every link of their assignment, from preparation to presentation.

FOTRIC IRExplorer is a powerful cross-platform Analysis System that enables remote access and control of FOTRIC thermal cameras through a web browser on various devices, including Mac, Windows, ios, Android, and Linux via WiFi.

FOTRIC AnalyzIR is a comprehensive analysis software designed to optimize thermal analysis and reporting processes to enhance inspections' efficiency and accuracy.



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# PROGUSA

More Than a Test Equipment Sales Company

## Our Story

ProgUSA LLC is a unique American company providing premium diagnostic Test equipment for many application areas within the US electric power industry.

ProgUSA provides a sales, support and service network across the entire USA for select high quality manufacturers originating outside USA. We focus on tools that are more advanced on diagnostic technology and have excellent value, and continuously offer education on such diagnostics. Since 2005.

## Sales

We strive to make every interaction smooth, enjoyable, and beneficial for your unique needs while ensuring that every purchase enhances your operational efficiency and accuracy.

## Calibration

Using cutting-edge technology and methods, our calibration services keep diagnostic equipment precise and accurate to government-regulated standards.

## Repair

Our expert technicians can diagnose and repair many diagnostic instruments, minimizing customer downtime and assure top performance for important applications.

## Training

We have specialists for on-customer-site session or web-based interactive training on the more complicated diagnostic equipment.



Power Transformer Test & Oil Purify

HiPot Test & Oil Dielectric Test

Circuit Breaker Test  
& SF6 Gas Testing & Treatment

Battery Bank Test

Substation Test, Survey &  
Monitoring

Partial Discharge  
Detection HV Cables

Portable Corona & Thermal  
Imagers

