Exciting TEST Products for the US Power Industry, from......



MV,HV,EHV CIRCUIT BREAKER Testing for Timing & Travel, Micro-ohms 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.

CAT series of low cost **Breaker timing/ motion analyzers**. 3, 6 or 12 timing ch. Many models under \$12K.

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

Pro insertion resistor (PIP) measure and

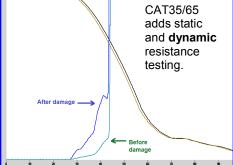
Pre-insertion resistor (PIR) measure and graph.

Free PC software and free upgrades.

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.

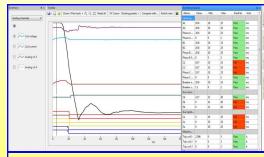






All DV Power products carry a 3 year warranty and are serviced in Florida

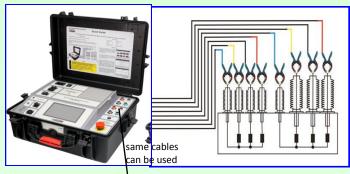




Sample of full timing/motion capture with pass/fail limits. Save as pdf, .xlsx, or .docx

POWER TRANSFORMER TEST EQUIPMENT

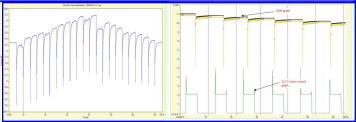




DV Power's newest Diagnostic tester (**TWA-400**) for 3 phase fast **winding resistance** test, 7" display, inter-active graphic **dynamic OLTC test** (aka **LTC-DRM**) and **Auto-Demag** function. TRUE 3 phase source for convenient and simultaneous H and L side testing, an industry first!!! Same leads 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-tapstep control/measure thru OLTC taps lets PC do the work.





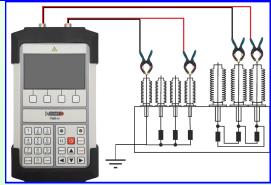




Transformer **Winding Resistance** Tester (RMO-60TD) up to 60A and 60V of drive for fast testing of even largest power transformers. 60TD includes effective **single** phase (LTC-DRM) **dynamic graphic timing and resistance of OLTC's and regulators** and built-in <u>Tap Changer</u> control. Includes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

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





(DEM-60R) Standalone 3 phase Automatic One –Touch <u>De-Magnetizer</u> for any size Power Transformers. SAFE. SIMPLE. Auto-step-down method ensures full de-mag. Measures core flux (new!).





TEL: 407 332 8678 INFO@PROGUSA.NET BROCHURES AND TECHNICAL PAPERS ON WWW.PROGUSA.NET

RH =

SF6 gas Quality Testing

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

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 **max**imum Sf6 cart performance up to 500KV use. Modern graphic HMI and flexible on-board storage and trailers.



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

TRANSFORMER OIL DE-GASSING & DRYING





Enervac model EHV4000 (1050 GPH) oil purification processor shown in a dual axle cargo trailer.



Minidehydrator / degas oil up to 60 GPH. Priced under \$17K.



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



LLC TEL: 407 332 8678 INFO@PROGUSA.NET

Exciting TEST Products for the US Power Industry!

BATTERY BANK Testing

TEST those substation battery banks without damaging them! Simple voltage monitor with constant current load-test competency, via <u>discharge testing with auto-scanning.</u> 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"

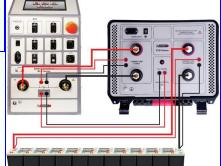
BAC25, DC
Battery
Charger to
augment the
permanent
battery
charger to
speed up
bank recharge
times and reduce wait time
to full back-up
energy..



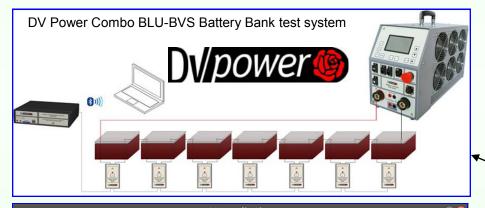
New ZVD-80 for full discharge to 0V then shorted, for Battery **recycling**.

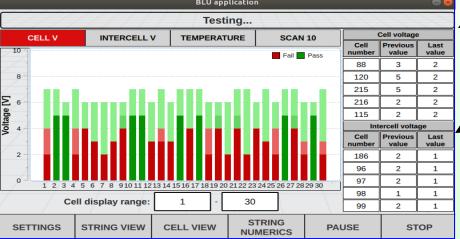


DV Power's BVR-20 for manual cell by cell testing, Use as routine bank **voltage test** or alongside BLU during capacity test to identify the weak cells.



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 1000VDC and 42KW. Under 46Lbs.



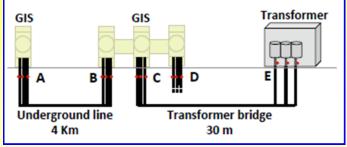


SUBSTATION RELIABILITY, Cable PD, Ground Grid, CT/PT

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.









CVT500 CT/PT/CVT test set, new for 2023!

Multi-tap (up to 5 taps) CT tester with built-in tap interface. Up to 2KV output to secondary of CT.

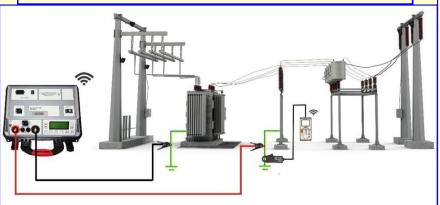
Turns ratio, polarity, excitation current, phase angle and auto CT knee point (IEEE 30 deg. and 45 Deg.)

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.







HQ: ORLANDO, FL.









Exciting TEST Products for the US Power Industry



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**







Zoom on corona blob

CC8HD



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 std. Bluetooth and SDRAM







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.



SERVICE: ProgUSA realizes that US customers want to be sure that there is USA based service available for their instruments. ProgUSA has a basic service shop in our Orlando office and a nearby full service repair and NIST calibration shop. In the rare case that the test set needs to be returned to the factory, ProgUSA handles all export & import papers to simplify ownership for the test set owner.

TRAINING: Certain test sets use can be optimized if the end-user gets proper training. ProgUSA has specialists on hand to offer such training for the more complicated diagnostic equipment. In some cases it is an on-customer-site session or web-based inter-active training and in other cases it is a regional seminar style. www.progusa.net with offices in Orlando (HQ and Service Center), Los Angeles, Dallas, Atlanta, Chicago, & Pittsburgh.