

# PRODUCT

I N N O V A T I O N • R E L I A B I L I T Y • S E R V I C E

# LINE



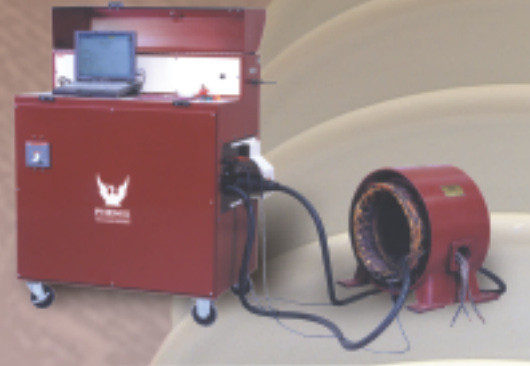
**PHENIX**  
**TECHNOLOGIES**



We are a leading manufacturer and global supplier of high voltage, high current and high power test systems and components.

We design, manufacture and deliver quality products for cable manufacturers, electrical utilities, the motor repair industry, OEMs, service contractors, transformer manufacturers and transformer repair industries.

Our equipment is built to satisfy the individual testing requirements of our customers. This brochure highlights our products and demonstrates our commitment to quality, leadership and innovation. Our products can be customized to satisfy the ever changing needs of our customers.



## Dielectric Testing

PHENIX test sets are available for both AC and DC dielectric testing applications with various ratings to suit virtually any testing requirement. Standard AC Dielectric, Resonant Test Systems, and stand alone or modular DC

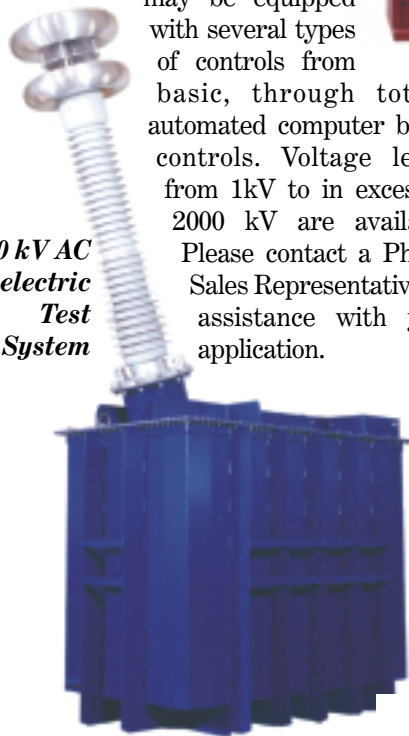
Dielectrics are all part of our standard product offering. Several models have been designed to meet specific ASTM or ANSI standards; such as, ASTM D149 for materials testing and ANSI A92.2 for insulated work platforms.

These systems may be equipped with several types of controls from basic, through totally automated computer based controls. Voltage levels from 1kV to in excess of 2000 kV are available. Please contact a Phenix Sales Representative for assistance with your application.

**350 kV AC Dielectric Test System**



**300 kV AC Dielectric Test System**



**750 kVA Resonant Test System**



**Variable Frequency and Variable Inductance Resonant Test Systems** are also available for factory and on-site cable, switchgear, and rotating machinery test applications.

## Portable Modular DC Hipots

PHENIX Technologies offers a line of conservatively designed, ruggedly built, portable DC Hipots for use in testing electrical switchgear, laminated cables, motors, generators and protective equipment. DC testing is popular because the equipment is more compact and lightweight than comparable AC equipment and is generally less expensive. DC test results are helpful in determining the adequacy of new insulation, when corrective steps are necessary, and establishing a maintenance inspection program to reduce failures in service and extend equipment life. Phenix also offers stackable DC test sets up to 600 kVDC and one piece systems with voltage levels up to >1 MVDC.

## Transformer Testing

PHENIX manufactures a complete line of transformer loss evaluation systems to perform all applicable tests per ANSI C57 and IEC 76 standards on single and three-phase distribution and power transformers. These systems can be provided to perform no-load/full load loss measurements, applied potential, induced potential, winding resistance, and turns ratio tests.

Automated systems which require a one step setup to each transformer can step through each test and significantly increase your production levels. Windows™-based loss evaluation, correction, and automation software can be developed and customized for your specific testing needs.

**Transformer Test System**





## Motor Testing

PHENIX is known worldwide for its motor testing equipment. We are the leading supplier of High Power Motor Test Systems, Core Loss Testers, AC Hipots, DC Hipots, Portable Megohmmeters, and Polarization Index Test Sets.

Motor Test Systems are available for load and no-load testing of all types of AC and DC motors; including Traction Motors, Synchronous Motors and Induction Motors. We have standard systems available for testing fractional up to and exceeding 12,500 HP.

### *High Power Motor Test System*



Windows™-based testing software is available for our Motor Test Systems and Core Loss Testers. Fully automated systems are available with custom designs per your requirements. Phenix will design a system to meet your motor testing requirements.



### *Low Power Motor Test Set*



### *CL 10A Core Loss Tester*

## Rubber Goods Testing

PHENIX offers systems for testing utility worker protective equipment including rubber gloves, sleeves, overshoes, helmets, hoses, hoods, switch sticks, bucket liners, and blankets. We also offer washers and dryers for cleaning your protective equipment. Phenix has implemented cutting edge technology into these test systems to make them more reliable, efficient and user friendly.

To meet all applicable standards, these units have available power supplies of 50 kVAC, 75 kVAC and 100 kVDC. Each test chamber is provided with it's own control PLC which is fiber optically networked to the Main Control PLC. This allows for easy future expansion with superior dependability and operator safety. Control and

mechanical functions are designed using the latest technology, making the Phenix test system your first choice in protective goods testing.



### *4 Position Blanket Tester*



### *24 Position Glove Tester*

## Portable Test Equipment

PHENIX manufactures a complete line of portable test equipment. Each portable test set is designed for field use. Housed in rugged high density polyethylene cases, they will provide years of outstanding service.

### We manufacture:

- Oil Dielectric Test Sets-60, 75, and 100 kVAC models
- Vacuum/Oil Interrupter Test Sets-40, 50, and 60 kVAC models
- Circuit Breaker Test Sets-models with 1000, 2000, 4000, and 5000 amp instantaneous output
- DC Hipots-6, 15, 40, 75, 100, 120, and 160 kVDC models
- Polarization Index and Dielectric Absorption Test Sets-up to 5 kVDC models
- Megohmmeters-automated and standard models
- Benchtop AC Hipots-2 to 15 kVAC models
- AC/DC Hipots-5/6 kV and 10/25 kV models
- Kilovoltmeters-100 and 200 kV
- Microhmmeters
- Frequency Response Analyzer



## High Current Testing

PHENIX High Current Test Sets for circuit breaker and recloser testing incorporate state-of-the-art design. Each system uses a Personal Computer as their control device, thus providing efficient testing procedures with minimal operator training, and complete documentation of the test results.

Models are available to fulfill your testing requirements. Our largest field unit can provide 75,000 amps for instantaneous testing of circuit breakers.

Our Recloser Test Systems greatly simplify testing by creating a database of test results and procedures. Once a specific type of recloser is tested, the procedures are recorded and can easily be repeated on similar models by recalling the test setups.



*High Current Automated Reclosure Test System*

## Other

PHENIX also manufactures various other complimentary items including custom designed High Voltage Terminations, Water Terminations, Voltage Dividers, and Power Supplies. We will work with you to develop a test system to meet almost any requirement. From the smallest hipot to a fully automated production line test system, Phenix is your one stop test equipment supplier. Please contact our technical sales agents with your test equipment needs.

Phenix Technologies is committed to providing quality, leadership, innovation, technology, and service in all areas of our business.

We will carry our commitment well into the future as we proudly continue to provide the best in high voltage, high current and high power test systems and components.

*High Current Circuit Breaker Test Set*



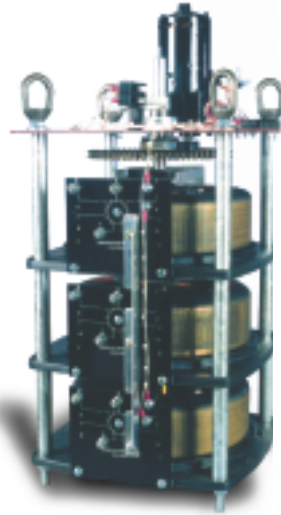


## Voltage Regulators & Stabilizers

PHENIX has developed a complete line of voltage regulators (variable transformers) which can meet practically any need for varying voltage. Many of these regulators are used in our test systems to provide dependable and precise regulation for many testing applications. These same regulators may be purchased independently for your particular application.

Phenix offers three basic types of regulators:

- **Toroidal Transformers**—will suit most low power applications, up to 100 kVA and voltages up to 600 volts.



*TOVT Toroidal Regulator*



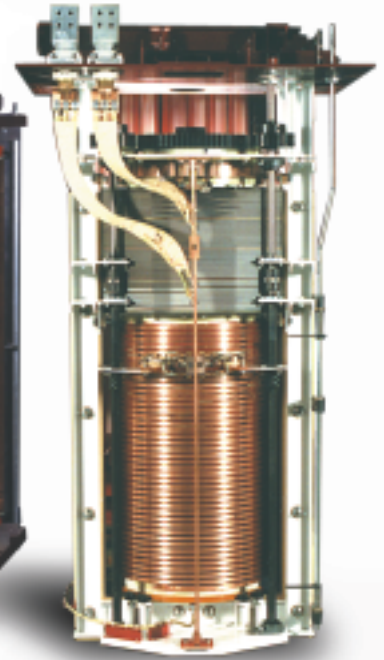
*Unique Carbon Roller Current Collection System*

- **Column-Type Variable Transformers (CTVT)** — for higher power applications, from 100 kVA to 2500 kVA. Voltage up to 600volts. These regulators utilize a roller type brush design, low turn-to-turn voltage of less than 0.7 volts, and nickel-plated windings to create the most dependable and maintenance-free regulators available.

- **THOMA-Type Transformer**—are best suited for high power applications from 1000 kVA to 6000 kVA. These unique regulators produce stepless voltage regulation over their operating range. Input voltages up to 25 kV may be used.



*CTVT Column-Type Regulator*



*THVT Thoma-Type Regulator*

## Impulse Generators / Standard Capacitors / Coupling Capacitors

PHENIX Technologies has partnered with Passoni & Villa to provide a complete line of testing equipment. Based in Milano, Italy, they too have a well-known reputation of high quality and excellence in the High Voltage field.



*GTN-Impulse Generator;  
200kV/stage,  
2000 kV-100kJ*

Impulse Generators up to 4800kV available. Units will also fully integrate with PHENIX Technologies manufactured line of high reliability Transformer Test Systems.

- Modular, compact designs with DC charger integrated into generator base.
- Designs suitable for indoor or outdoor sites that resist the effects of dust, temperature, humidity or other ambient conditions.
- State-of-the-art data acquisition systems.
- Full service and support from PHENIX Technologies
- Easy change of series-parallel configurations.
- Highly visible, fast-acting and safe grounding systems.
- Versatility of automated or manual operation from control desk.
- Plug-in type front and tail rear resistors.



**PHENIX**  
TECHNOLOGIES

## Company Profile

PHENIX TECHNOLOGIES is a leading manufacturer of high voltage, high current, and high power test systems and components. Our test systems are in operation around the world satisfying the testing requirements of our customers.

Our 65,000 square foot headquarters is a modern manufacturing facility where all the major components of our systems are produced. All aspects of electrical and mechanical design, software design, and actual production are performed in this facility and controlled by an ISO9001 quality program. Our engineers offer a unique blend of theoretical knowledge and practical

experience. Our ever-expanding Service and Calibration Department stands ready to assist you during and after installation to insure years of trouble-free service.

Our engineering resources, manufacturing capability, and commitment to flexibility have earned us the reputation as the supplier of choice. From portable test equipment to large, cutting edge automated test systems, Phenix Technologies provides solutions for your testing needs. You owe it to yourself to discuss your testing requirements with Phenix Technologies today.

## The PHENIX Technologies Product Line

- High Voltage AC Dielectric Test Sets
- Resonant Test Sets
- Variable Frequency Resonant Test Sets
- DC Hipots and Insulation Test Sets
- Automatic Insulating Material Testers (D149)
- Microhmmeters
- Liquid Dielectric Test Sets
- Megohmmeters
- AC/DC Kilovoltmeters
- Partial Discharge Detector
- Vacuum/Oil Interrupter Testers
- Bucket Truck Testers
- High-Frequency Cable Aging Test Sets
- Heat Cycling Test Sets
- Rubber Goods-Protective Equipment Testers
- Core Loss Testers
- AC, DC and AC/DC Motor Test Sets
- Water Brake Dynamometers
- Transformer Test Sets
- Frequency Response Analyzer
- High Current / Circuit Breaker Test Sets
- Recloser Test Sets
- DC Power Supplies
- High Voltage DC Cable Thumpers
- High Voltage Terminations
- High Power Column-Type Variable Transformers
- High Power Thoma-Type Variable Transformers
- Voltage and Current Stabilizers
- Impulse Generators/Standard Capacitors/  
Coupling Capacitors

Your local representative is



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**TECHNOLOGIES**

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