

TRS

TRANSFORMERS (PTY) LTD
TRANSFORMERS | REWINDS | SWITCHGEAR

Reg No: 2018/635271/07



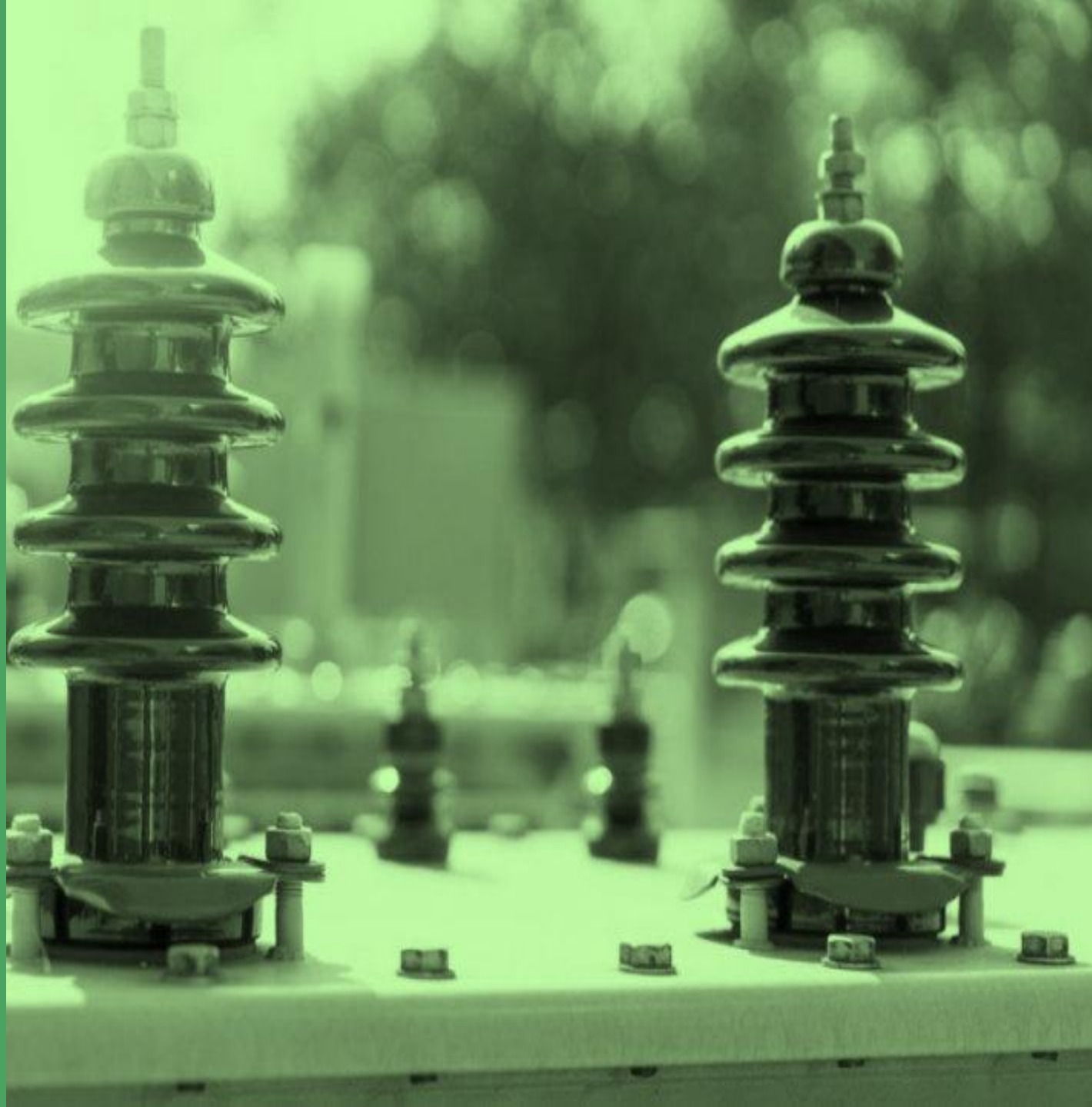
Directors:

Ms RV Walbrugh 0837947707

Mr JA Meintjies 0823586341



Leading the way in service excellence!





About TRS



TRS TRANSFORMERS (PTY) LTD :



Your Trusted Power Partner. TRS Transformers is a power solutions company dedicated to becoming your first-choice service provider across the Northern Cape, Free State, Western Cape, North West - and beyond. Our mission is to deliver the best customer experience in the industry through dependable service and lasting partnerships.

With over 14 years of experience, we help address critical aspects of your power systems - safety, reliability, operability, and efficiency.

Powering Progress with Purpose. At TRS Transformers, we provide reliable and safe power solutions that support and enhance your day-to-day operations. Our solutions are built for long-term value, helping your systems run smoothly and efficiently. Our Motto: Trust. Respect. Serve. This is more than just a slogan — it reflects the way we work. Every project we undertake is approached with a strong commitment to safety, efficiency, and attention to detail. We aim to empower our clients through dependable service and fit-for-purpose solutions.

With TRS Transformers, your power is in trusted hands.

TRS Transformers specialize in comprehensive power solutions, including Transformer and Switchgear Field Services; Supply, Maintenance & Repairs; Supply of Virgin and Regenerated Oil; Electrical Wholesale incl PPE Wear and Accredited High Voltage Training

COMPANY DETAILS

Name: TRS Transformers (Pty) Ltd
Reg No: 2018 / 635271 /07
VAT No: 4660308620

Head Office: Cnr Tienie Louw & Pauling Street, Kimberley, NC 8301
NW Branch: 20 Parys Avenue, Baillie Park, Potchefstroom, NW 2521

Directors: Jackie Meintjies & Rhona Walbrugh
Staff: > 35 Employees

www.trstransformers.co.za



OUR VISSION

To be a leading specialist in transformer and switchgear field services, recognized for our expertise, innovation, and unwavering commitment to quality and reliability.

OUR MISSION

To build long-term business relationships by delivering dedicated service and fit-for-purpose solutions, while upholding the highest ethical principles and industry standards.

OUR MOTTO

TRS – Trust. Respect. Serve.



Key Services



SPECIALIZED KEY SERVICES INCLUDE :

- Complete Transformer Maintenance
- Transformer Services, Repairs & Oil Purification up to 80MVA (132kV)
- Oil Purification to SANS 555 Specification & IEC 159
- Oil Sampling & Analysis incl Full Laboratory Service
- Oil Regeneration (In-house & On-site)
- Transformer Rewinding up to 20MVA (33kV)
- Supply of Special- & Power Transformers up to 80MVA (132kV) to SANS 780 (Reg 5.1) Specification
- Supply of New and/or Refurbished Switchgear up to 132kV
- Switchgear Repairs & Maintenance from 400V up to 132kV, complete with secondary injection testing
- Supply of Complete Mini Substations up to 2,5MVA (22kV), PV Ready
- Repairs & Maintenance of Surface and Underground Mini Substations
- Complete Transformers & Substation Testing (Megger TRAX 280 c/w TSX303 and TDX 120)
- Complete HV & MV Circuit Breaker & Relay Maintenance & Testing (Megger TM1700 & SVERKER900)
- High Voltage Training and supply of PPE Wear, in conjunction with Devoltage Training Centre
- Electrical Wholesale

Quality Statement

TRS Transformers is dedicated to delivering products and services of the highest quality. We strive to meet and exceed customer expectations through timely delivery, cost-effective solutions, and a strong focus on customer-specific requirements. Our quality management practices are driven by continual improvement, compliance with industry standards and ethical business conduct.

Service Commitment

We strive to be the first choice for transformer and switchgear repairs and maintenance by delivering exceptional service built on reliability and trust. More than just a service provider, we aim to be a maintenance partner - working closely with our clients to support their long-term operational success.





Transformer Field Services



TRANSFORMER FIELD SERVICES :

TRRS Transformers' field services are available 24/7 to diagnose and resolve power issues in the event of a sudden outage or failure. Our highly skilled technicians can quickly pinpoint problems and restore your service promptly. Once the issue is resolved, we can assist you in developing a plan to prevent future incidents.

Transformer Maintenance & Repair

TRRS Transformers provides outstanding Transformer Maintenance and Repairs Services.

Basic services on-site at your chosen location, or off-site at our workshop, include:

Oil Sampling and Analysis:

☞ To establish the condition of transformers and transformer oil

Oil Purification:

☞ To improve the condition and life expectancy of the transformer oil by removing water, dirt and gasses

Transformer Repairs:

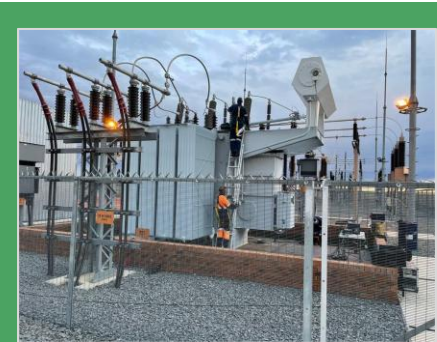
☞ To improve the condition of the transformer by repairing leaks that contaminates the oil through atmospheric conditions

Transformer Oil Regeneration:

☞ To minimize the environmental impact

At TRRS Transformers, we deliver reliable and safe power solutions that enhance our customers' everyday operations. Our motto, "Trust, Respect & Serve," reflects our commitment to conducting our work with safety, efficiency and thoroughness. We believe in empowering and enabling our customers to do the same.

When you need an expert company to service major power distribution and control equipment, choose TRRS Transformers.



Transformer Oil Analysis



Transformer Oil Analysis

TRS Transformers specializes in transformer oil analysis, to maintain and establish the condition of transformer oil. On site oil sampling are done by our professional team and sent to an independent accredited laboratory for analysis.

Routine Tests

- ☞ **Transformer Oil Analysis:** To determine the Water content and Dielectric strength, as these directly affects the insulating capability of the oil
- ☞ **Acidity of Oil:** Indicating the degree of Transformer oil deterioration and possibility of corrosion inducing inside the transformer
- ☞ **Gas Analysis:** An accurate indication of electrical and insulation faults inside the transformer
- ☞ **PCB Testing:** Presence of PCB in the transformer oil, indicating the toxicity and need for classification of hazardous substance
- ☞ **Furan Test:** To assess the paper insulation condition

Special Tests

- ☞ **Corrosive Sulphur:** To determine the presence of sulphur that can cause corrosion damage that leads to failure of apparatus
- ☞ **Interfacial Tension:** Determining the life expectancy of the oil
- ☞ **Tan Delta:** Detection of none-mineral insulation additives that interferes with the quality of the oil

These tests are available to assist in preventative maintenance and long-term planning. TRS Transformers stores data on all analysis to enable us to build a service history for each specific transformer and client.

Purification Plants

- ☞ TRS Transformers has 3 standard purification plants. The plants have the capacity of 3000 & 6000 litres / hour, respectively
- ☞ We also have 1 small 1000-liter plant for working underground and on high building
- ☞ Oil ppm meters on plant & kV tester, 80kV for on-site tests





Transformer Repairs



Transformer Repairs

- The repair and refurbishing of mini-substations, distribution transformers and power transformers
- The purification, regeneration, supply and testing of transformer and light industrial oils
- In-house and on-site refurbishment and repairs include complete rewinds, re-gasket, vacuum treatment and drying of cores and complete testing of units to SANS standards
- The cleaning, sandblasting and spray painting of transformers
- Top-up of oil if the oil is below the recommended level
- The replacement / repairs of leaking gaskets, neoprene cone rubbers, bushings, conservators and valves
- Replacing Buchholz relays, Refurbishing sight glasses, Upgrading of breathers and Repair of leaking inspection covers
- The supply and testing of protective relays
- The supply of silica gel and breathers
- Infrared surveys
- Purifying the transformer oil where the di-electric strength needs to be raised and where moisture content needs to be reduced, with the use of our mobile purification plant
- Replacing of transformer oil where it is indicated that the acid level has reached its recommended limit
- **Replacing of PCB-contaminated oil** which is above the recommended legal limit of 50ppm. The transformer will be isolated, drained, flushed with transformer oil and refilled with non-PCB oil and tested again. The contaminated oil will be legally discarded.

Product Range

- Special & Power Transformers from 1,5 VA to 20MVA
- Programmable Computer Board (PCB) Transformers
- Oil & Air-Cooled Transformers
- Auto Starters
- Battery Chargers & Power Supplies
- Reactors
- Voltage Transformers
- Virgin & Ester Transformer Oil





Transformer & Substation Testing

**Megger TRAX
c/w TSX303**



TRANSFORMER & SUBSTATION TESTING :



Megger TRAX 220 – The one system for a variety of different tests

TRAX is not just a multifunctional test instrument, but many intelligent instruments in one. The software includes several apps, making it fast and easy to perform a large range of different tests. The hardware, range of cables and accessories offers unmatched flexibility, making the TRAX an efficient and time-saving system.

TRAX is packed with functionalities to make the test engineers task easier and quicker. For example, the 100 A true DC test current with a 50 V compliance voltage for winding resistance measurements or the 250 V AC voltage for turns ratio measurements. Also, the adaptive technique for the fastest and most efficient demagnetization of a transformer core and the patented technique for acquiring authentic, dynamic resistance measurements on on-load tap changers to determine the real magnitude of transition resistances and transition times. TRAX also features 12 kV power factor/tan delta testing, patented temperature correction, voltage dependence detection, and narrowband dielectric frequency response (NB DFR) testing, making it a robust transformer test system.

TRAX includes Megger's market leading circuit breaker testing technology and is the only multifunctional test set on the market that offers the following tests:

- ⚡ Timing test (O, C, OC, CO and OCO)
- ⚡ Coil supply voltage (Station voltage)
- ⚡ Pre-insertion resistance (PIR)
- ⚡ Open coil current
- ⚡ Breaker analysis graphs (timing, voltage, current)

Megger TSX303 – Automatic Switch Box

The latest addition to our test equipment, the TSX 303, an accessory to the TRAX that enables automatic testing of all phases and taps of a transformer with only one single connection of test leads.

This eliminates the need for reconnections between tests and greatly reduces the time needed for the full measurement procedure. Safety is also improved as the number of trips up and down the ladder to transformer is reduced to only connection and disconnection of the bushing cables.





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Transformer & Substation Testing

Megger TDX120



TRANSFORMER & SUBSTATION TESTING :



Megger TDX 120 – TRAX high voltage accessory for measuring capacitance and tan delta/power factor

The TRAX accessory TDX 120 is a fully automatic 12 kV insulation dissipation factor (tan delta / power factor) test set designed for condition assessment of electrical insulation in high voltage apparatus. When connected to the TRAX, a special app is activated that enables the most advanced tan delta / power factor testing on the market.

TDX 120 together with TRAX is suitable for measurement of:

Tan delta/power factor | Capacitance | Excitation current | Automatic tan delta/power factor tip-up | Watts loss | Inductance | Voltage | Current

Test objects with ready-made test plans and connection diagrams include:

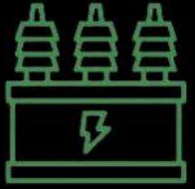
Power transformers | Instrument transformers | Rotating machines | Oil insulation | Bushings | Cables | Capacitors | Circuit breakers | Surge arresters

Apart from the fully automatic mode a manual mode is available for testing on even more test objects or tailored troubleshooting. Balancing (voltage or frequency) of an external inductor when testing high capacitive objects and HV turns-ratio testing (an optional TTR capacitor is available) is also possible in manual mode. On top of this, the TDX 120 can also be used as a PD-free high voltage source.

Features and benefits

- The test set uses an internally generated test signal resulting in accurate and clean measurements even in the most severe conditions and in the event, power is required from a portable generator.
- TDX 120 utilizes the groundbreaking Megger innovation ITC (Individual Temperature Correction) to accurately translate tan delta /power factor test results in warm/cold test objects to the reference temperature 20°C.
- With a maximum output of 500 mA @ 12 kV the TDX 120 is powerful enough to be able to handle high capacitance tests without the use of an external inductor.
- Voltage dependence detection (VDD – Megger innovation) to automatically warn if test object shows signs of power factor voltage dependence and a tip-up test should be performed
- Wide range frequency range test output (1-505 Hz) for narrow band DFR measurements.





TRS

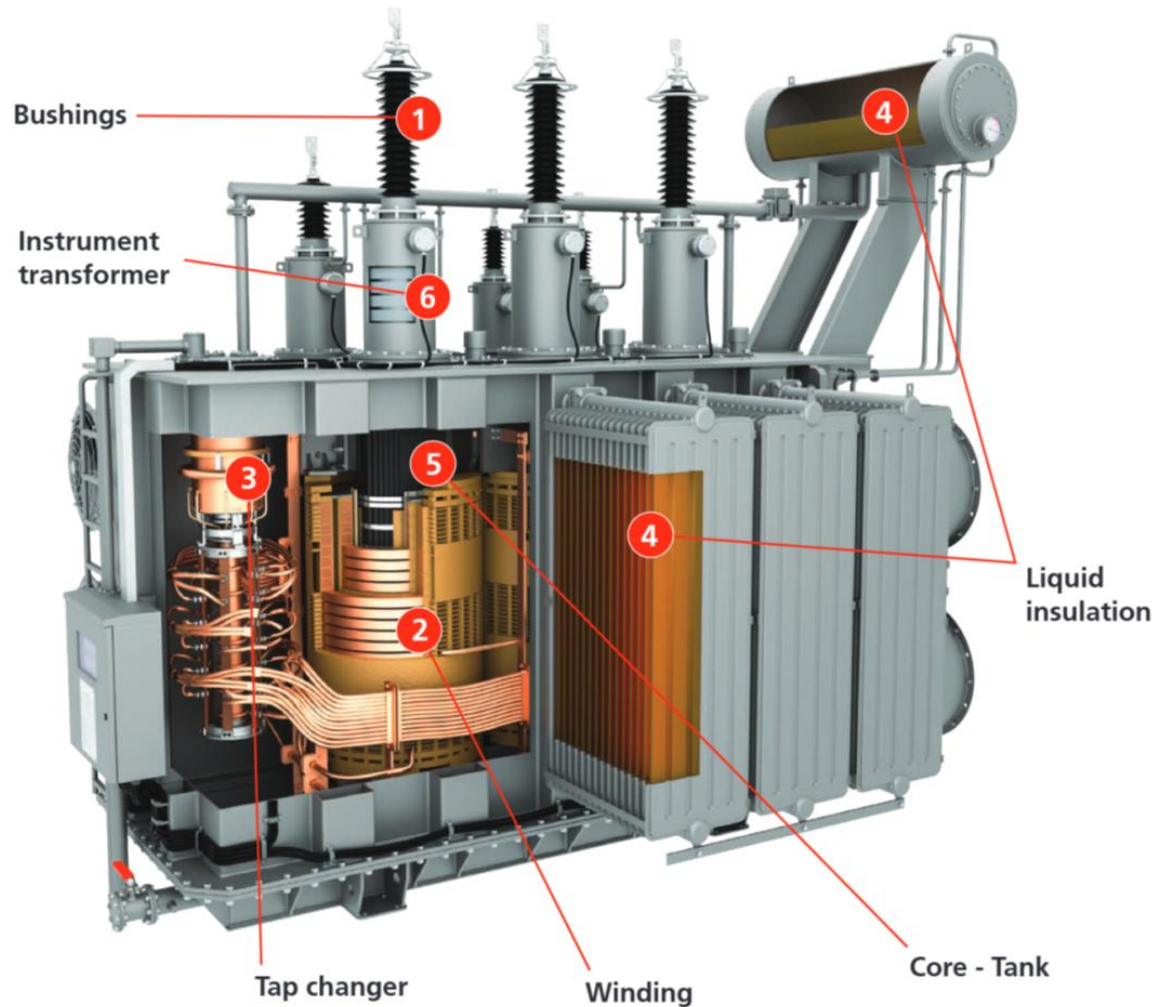
TRANSFORMERS (PTY) LTD
TRANSFORMERS | REWINDS | SWITCHGEAR

Transformer & Substation Testing

Megger
Tan Delta Test Attachment



TRANSFORMER TESTING COMPONENTS :





Electrical Field Services



ELECTRICAL FIELD SERVICES :

Our Electrical Field Services include a range of essential systems support components. These range from inspections to testing, all focussed at ensuring the health and longevity of electrical systems.

Inspections performed by our qualified electrical field service technicians; help identify potential issues before they become potentially dangerous. Testing services provide accurate electrical system measurements, offering insight into its current state, and identifying weaknesses or faults.

It is essential to have regular field services performed to prevent malfunction or failure of electrical systems - ultimately maintaining safety and minimizing potential downtime in commercial and industrial settings.

Our certified technicians will work to ensure the reliability and integrity of your electrical equipment.

Ongoing, planned maintenance is a vital tool for preventing unnecessary down time. We can help you implement scheduled preventative maintenance

TRS Transformers offers a variety of electrical field services, from on-site testing to insulation and ground resistance testing, power quality assessment, and ARC flash assessments.

TRS Transformers Electrical Field Services can service your circuit breakers and relays in our shop or at your location.

Onsite services include:

- 🔧 Circuit Breaker & Relay Testing
- 🔧 Maintenance
- 🔧 Repairs
- 🔧 Supply
- 🔧 Remanufacturing



Circuit Breaker Testing

Megger TM1700



CIRCUIT BREAKER & RELAY TESTING :

TRS Transformers use the following test equipment from Megger to enable us to do the important and required maintenance on HV & MV Circuit Breakers and Relays:

TM1700 - Circuit Breaker Analyzer System

SVERKER900 - Relay and Multifunctional Substation Test System

Megger TM1700 CIRCUIT BREAKER ANALYSER

The robust Megger TM1700 series of Circuit Breaker Analysers offers powerful technology to assist the user in achieving efficient and reliable testing

Megger TM1700 Built for High-Voltage Substations

All inputs and outputs on the instrument are designed to withstand the challenging industrial environments. Galvanically isolated inputs and outputs make it possible to perform all relevant measurements in one test, eliminating the need for new setup and re-connections.

The patented Dual Ground method makes testing fast and safe due to keeping the circuit breaker grounded on both sides throughout the test.

The timing measurement inputs are using a patented an Active Interference Suppression algorithm ensuring correct timing and accurate Pre-Insertion Resistor values, even at high capacitively coupled interference currents.

The adaptive and easy-to-use software allow the user to perform the test by simply turning the test switch - Does not require settings. The operator is only one click away from advanced help functions such as connection diagrams. The 8-inch colour touch-screen, with on-screen keyboard, allows the user to efficiently operate this high-level interface.

Megger TM1700 key features:

- Provides reliable and accurate test results in noisy high voltage substations
- Ground testing, both sides of breaker grounded
- On-screen assistance with connection diagrams and test templates





Circuit Breaker Testing

Megger SVERKER900



CIRCUIT BREAKER & RELAY TESTING :

SVERKER900

Relay and Multifunctional Substation Test System

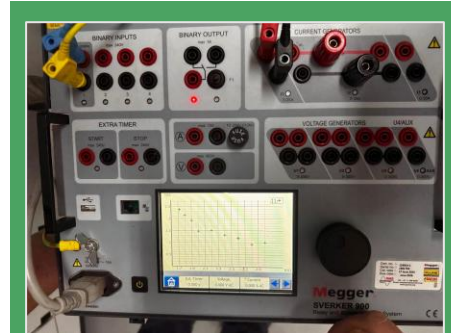
SVERKER is synonymous with the very best in relay and substation testing and the new SVERKER900 now lifts this success to a higher level.

The SVERKER900 Relay and Substation Test System is the ultimate toolbox that addresses the increasing need for three-phase testing capability in electrical distribution substations, renewable power generation stations and industrial applications. The intuitive user interface is presented on the LCD touch screen. It has a powerful combination of current and voltage sources and a versatility of measurement possibilities.

The SVERKER900 is specifically designed for basic, manual three phase secondary testing of protection devices. In addition, various primary testing can be performed, since the current and voltage sources can be series- and/or parallel connected to allow for up to 105A AC or 900V AC output. All three current and four voltage sources can be individually adjusted with respect to amplitude, phase angle and frequency. The fourth voltage source allows for testing of numerical relays that needs a reference voltage simulating the busbar.

Transformers are a marvel of physics and engineering. Screening and diagnostic tests provide information about all three of the transformer's health indices:

- Dielectric – the ability of the transformers insulating materials to support an electric field and thereby provide electrical isolation of energized parts from other parts that are operating at different voltages or that are maintained at ground potential
- Mechanical – this relates to the ability of a transformer to carry current, and therefore also encompasses magnetic health
- Thermal – the ability of the transformer to dissipate heat safely and effectively





Other Services



OTHER SERVICES :

Electrical Construction

- ⚡ Electrical Construction & Installation
- ⚡ Electrical Consulting & Wholesale
- ⚡ Certificate of Compliance (COC) Certification
- ⚡ Cable Installation
- ⚡ Terminations & Joints
- ⚡ HV & LV Electrical Fault Finding & Repairs
- ⚡ HV & LV Switchgear Testing, Maintenance & Repairs
- ⚡ Thermal Scanning & Fault Analysis
- ⚡ Step-up & Step-down System Analysis, Supply & Installation
- ⚡ Installation of Main Power Grit Transformer Supply

Construction of Overhead Powerlines

- ⚡ Up to 33kV Overhead Power Lines
- ⚡ Supply Hardware & Install
- ⚡ Overhead Line Inspection, Fault Finding & Maintenance
- ⚡ Earthing/Bonding of Railway Tracks
- ⚡ Replacement of Copper Overhead Cables with Tiger Wire

Cable fault location, testing, and diagnostics

- ⚡ Accurately detect location of underground cable faults
- ⚡ Pressure testing of cables
- ⚡ Repair of damaged cables

Generators

- ⚡ Supply, Install & Maintain Generators 5kVA-1600kVA
- ⚡ Design according to Customer need, including option with full synchronisation to Grid

Crane Truck Hire & Transport

- ⚡ Crane Truck lifting capacity, standard 12000kg at 3.2m; 9460kg at 4.2m 6640kg at 6.0 m and 5055kg at 8.0m
- ⚡ Moving of Transformers, Generators and/or Electrical Motors up to 30 Ton
- ⚡ Smaller Crain Truck also available





**Accredited
Training**



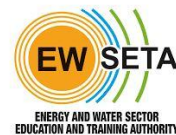
ACCREDITED HIGH VOLTAGE TRAINING :

In association with

DEV~~V~~OLTAGE TRAINING CENTRE cc

- ✗ Authorised Person (SAIEE 1868 RV 2) (3 Days)
- ✗ Practical Switching Assessment – Become an Appointed Operator (1 Day)
- ✗ Responsible Person (2 Days)
- ✗ Substation Audit (2 Days)
- ✗ Overhead Line Inspection and Fault Finding (2 Days)
- ✗ Power System Protection (2 Days)
- ✗ Persons for Access Only (1 Day)
- ✗ Electrical Awareness (1 Day)
- ✗ Transformers and Transformer Maintenance (SAIEE 0869) (2 Days)
- ✗ Switching and Switchgear Maintenance (2 Days)

For more information on accredited High Voltage and Medium Voltage courses please visit www.devoltage.co.za or use the QR code with your mobile phone.



www.devoltage.co.za



SAFETY & IMPORTANCE OF PPE WEAR :



What is an ARC FLASH?

An Arc Flash is a potentially fatal explosion of extreme light and radiant heat as a result of a short circuit on an electrical panel that can be caused by dust, dropping tools, accidental touching, condensation, corrosion or a faulty installation.

An Arc Flash can reach temperatures of up to 20,000°C and can cause permanent injuries or fatalities

What are the hazards and dangers of an ARC FLASH?

For a worker, injuries caused by an Arc Flash can be serious depending on the distance of work, the incident energy and the duration of the Arc Flash.

Possible injuries include second and third degree burns from the extreme heat of the blast, burns from airborne molten metal, metal oxides & vaporized copper, concussion, head injuries, hearing impairment and damaged eyesight. An Arc Flash can also cause fire in surrounding areas.

Safety first - WEAR THE CORRECT PPE

TRS Transformers, through Devoltage Training Centre cc, is a reseller for Dromex PPE Products and HellermannTyton High Voltage Testers. Contact us for more information and a quotation to protect your employees and safe lives.

DEV~~V~~OLTAGE TRAINING CENTRE cc

HellermannTyton





Contact us



CONTACT US:

Serving the Community

- “ We are proud to give back by supporting our community and driving positive change.
- “ At TRS Transformers, we care deeply about people and the planet – and we are committed to making a meaningful difference.

With TRS Transformers, your power solutions are handled with expertise and care.

Contact us Today

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Kimberley, Northern Cape, 8301

- NW Branch 20 Parys Avenue, Baillie Park, Potchefstroom,
North West, 2531

Our client base includes, but is not limited to, the following:

AfriSam | Anglo American | De Beers | Eskom | Ekapa Minerals | GWK Limited | Idwala Lime | KP Lime | NWU | SPU | Petra Diamonds | Transnet Freight Rail | Gransolar | Mulilo | Simacel | MPPV and various other solar plants and municipalities throughout the Northern Cape.

Terms & conditions apply when purchasing goods/services, please inquire at our Office. All pictures inserted are for your illustration purposes only and actual products may appear different in some cases.

