

Techno Power

تکنو پاور



www.technopowereg.com



About **TechnoPower**

TechnoPower is an Egyptian company works in the fields of supplying electrical testing equipments, electrical testing services, maintenance and repairing, and it has a team of highly qualified specialists capable of supporting our clients in our field.

First: Sales

TechnoPower represents major international companies in the field of testing and measurements to meet the needs of the Egyptian market with efficient and high technology products.

Representing the company in this field sales engineers with expertise and high efficiency to cooperate with all clients to meet their technical needs and provide them with the state-of-the-art products and solutions.

Our key success is the after-sales service by highly qualified technical support engineers capable of solving the technical problems that could face our clients.

TechnoPower Customer base

- Electricity Distribution Companies
- Electricity Transmission Companies
- Electricity Generation Companies
- National Institute of Standard in Egypt
- Many of Research Centers in Egypt
- Military Factories
- Oil Refining Companies
- Petrochemicals Companies
- Many of private owned Companies
- Many of private owned Factories

Second: Testing Services

TechnoPower have an integrated portable test systems for different testing applications and conducting these tests highly qualified engineers capable of performing the tests and repairing on site for all the electrical equipments according to the international standards and following the safety regulations.

- Underground Cable Fault Locations Service for Low voltage and Medium Voltage networks.
- Low Voltage and Medium Voltage Cable Testing Service.
- Transformers Testing Service (Distribution, Power, Voltage and Current)
- Circuit Breakers Testing Service.
- Thermal imaging survey for detection hot spots.

Third: Maintenance and Repairing

TechnoPower has a qualified maintenance laboratory and specialists with high technical expertise for the maintenance and repairing of all instruments and test equipments.



Cable Fault Location and Testing Equipments for Low, Medium and High Voltage Networks

PORTABLE CABLE FAULT LOCATION SYSTEMS

All in One portable system for complex cables networks.
 Perfect choice for complex, noisy and congested networks as in cities.
 Very efficient due to advanced TDR (up to 95 km) and high surge energy (1000 J up to 2000 J).

Models Available:

- P5i / P12i / P24i / P32i

| P5 | P12 | P24 | P32 |
|---|---|---|---|
|  |  |  |  |
| P5i Integrated TDR & ART | P12i Integrated TDR & ART | P24i From Q3 2016 | P32i / P40i Integrated TDR & ART |

PINPOINTING DEVICE

The acoustic pin-pointing fault location system Kamphone is a ground sound microphone and is used for pinpointing of flashover faults in power cables. Acoustic and magnetic sensing ground phone.

Models Available:

- KAMPHONE



LINE TRACING EQUIPMENTS

The audio-frequency oscillator is a sinusoidal oscillator with a power output of up to 250W. It is used for routing cables and pipelines in the earth or on construction sites in combination with a search receiver.

Models Available:

- AFG 250-P
- FERROPHON



DC HV TEST SETS

Portable test sets for HV DC insulation Withstand testing.
 Precise measurement of voltage and leakage current.
 Integrated safety features.

Models available:

- HTD6 / PGT 25 kV / PGT 50 kV / PGT 80 kV / PGT 110 kV



CABLE IDENTIFICATION EQUIPMENTS

The InterSelect cable selection set is used for positive selection of single cable or line from a bundle of cables.

Includes signal generator injecting unipolar current in DUT and sensitive receiver for remote identification.

Models Available:

- InterSelect G100 / S10/ S11



Professionals in Cable Fault Location in Low and Medium Voltage networks

Electrical Test Equipment For Substation and Protection Relay Testing

PRIMARY INJECTION

High current and voltage injection. Testing of current transformers, voltage transformers, circuit breakers, relays, reclosers, sectionalizers, bus-bars and switchgear testing.

Models Available:

- Raptor Systems
- LET Series



SECONDARY INJECTION

A large choice of Secondary injection test sets and protection relay test equipment. Single or three phase current, voltage, frequency and IEC-61850 testing.

Models Available:

- Mentor System
- PTE Series



MEASUREMENT EQUIPMENTS

Maintenance and commissioning of substations and power plants.

Circuit breaker analyzer, timing and motion, low resistance micro ohmmeters, digital timers, windings resistance, contact resistance, phase angle and frequency meter.

Models Available:

- PME Series



TRANSFORMER TESTING

Diagnostic insulation testing in motors/generators. Turn ratio and winding resistance meters. Recovery voltage. Polarization index. Short circuit impedance.

Models Available:

- ETP Series



Non contact temperature measurement

INFRARED THERMOMETERS

Our handheld thermometers with innovative laser visors are perfectly suited for all everyday portable measurement tasks in preventive maintenance and anywhere else where non-contact temperature measurements are required.

Models Available:

- Optris LS Series
- Optris P20 Series



INFRARED CAMERAS

Our comprehensive product portfolio comprises infrared measurement cameras for different industrial applications as well as research & development.

Models Available:

- Optris PI Series





Training Courses and Seminars

The company is not only a supplier of electrical equipment but also organizes technical courses and seminars covering various aspects of substation equipment, cable testing and diagnostics, cable fault location,...

During our Seminars, our customers are always well informed with the latest technology products in our field.

At the company we like to share our knowledge; During our Technical training courses we provide our customer with theory and practical training so the customer capable of using the equipments at its maximum performance.

Our Technical training courses and Seminars given by highly qualified experts and specialists with more than 20 years of experience.

Courses and seminars:

1- Power Cables:

Low, Medium and High Voltage Power Cables

Construction and Types, Cable insulating materials, Testing, Failure analysis, Fault location,

2- Protection Relays Testing:

3- Circuit Breakers Testing:

Low, Medium and High Voltage Circuit Breakers

4- Transformers Testing:

Power, Distribution, Voltage and Current Transformers

5- IR Survey:

Testing, Preventive maintenance and Diagnosis,.....





Testing Services

Cable Fault Location Service for Low, Medium and High Voltage Networks

TechnoPower have the modern and high technology portable cable fault location systems for locating the cable faults precisely and accurately.

Highly qualified engineers and technicians in the field of underground cable fault location are performing these tests according to the international standards and following the safety regulations.

With our system; we are able to locate complex cables faults.

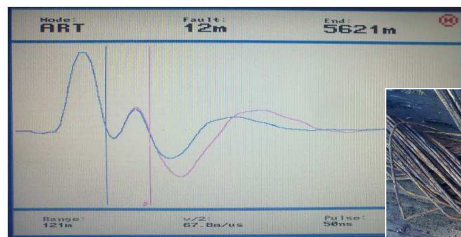
Professional reports with recommendations for the actions to be taken.

| | Applied Voltage | Leakage current | Insulation resistance | Capacitance | Comment |
|---------|-----------------|-----------------|-----------------------|--------------|---------|
| Phase 1 | 1.5 kV | 31 μ A | 48 M Ω | 2.71 μ F | Good |
| Phase 2 | 1.5 kV | 159 μ A | 9.0 M Ω | 2.77 μ F | Bad |
| Phase 3 | 1.5 kV | Short Circuit | 0 M Ω | ----- | Faulty |

The insulation test gives the same results of the insulation condition of the three cores of the cable.

Fault localization:

Equipment used: (Intereng-kmt) P5i Cable Fault Location System

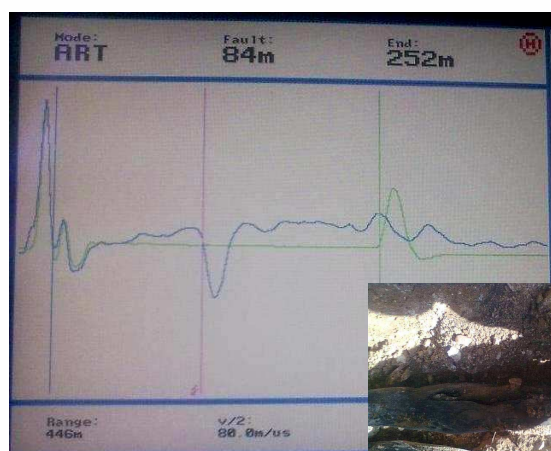


The graph shows the following:

1. The fault is in the phase C (red trace).
2. The fault is at approx. 12 meter from the near end of the cable.



Test done on a submarine medium voltage cable between two off shore platforms with cable length of 6 km



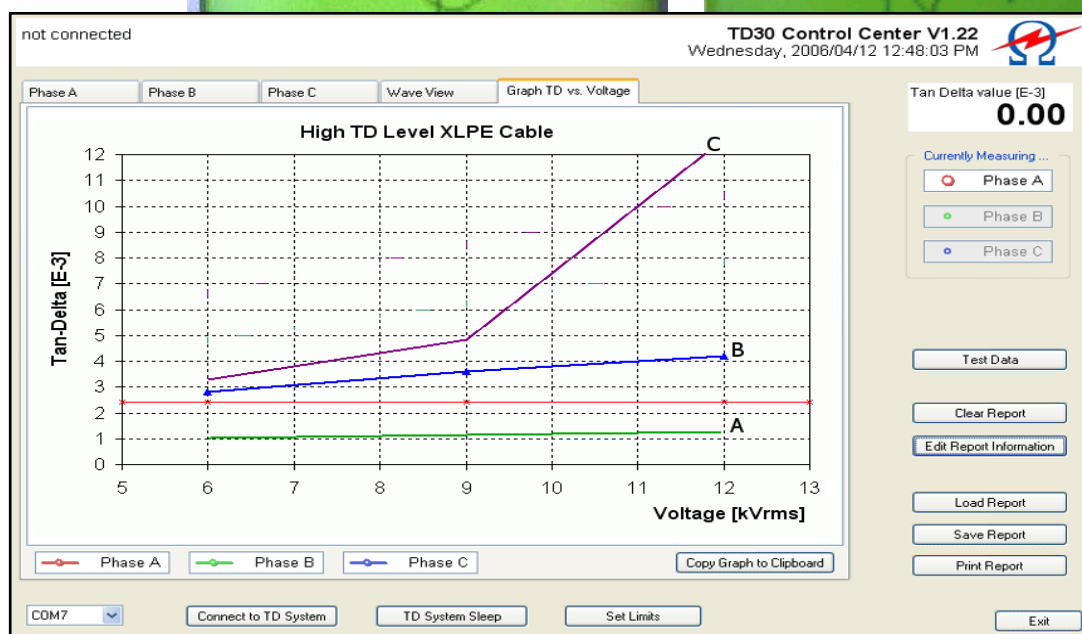
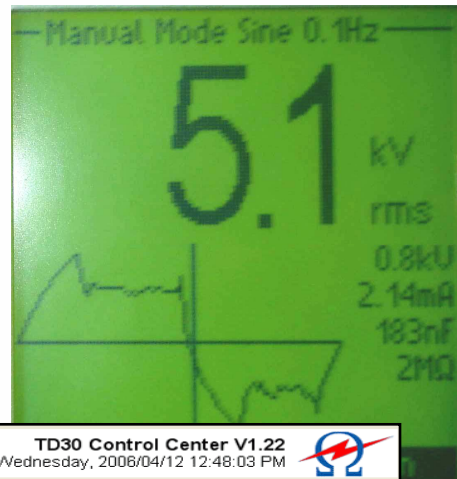
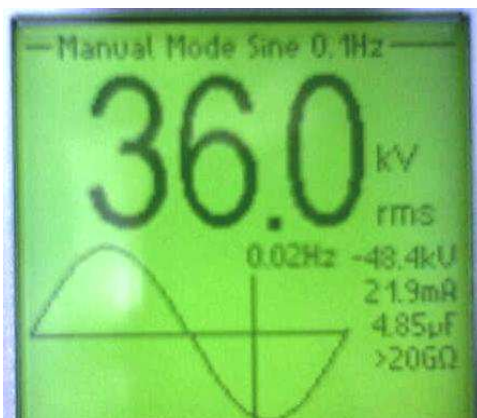
Test done on Low voltage cable between two LV distribution panels with cable length of 252 meters



Testing Services

Low and Medium Voltage Cables Testing Service

The company capable of performing the test service of analyzing the integrity of the insulation system of the Medium and High voltage cables.





Testing Services

Testing Services of Distribution and Power Transformers

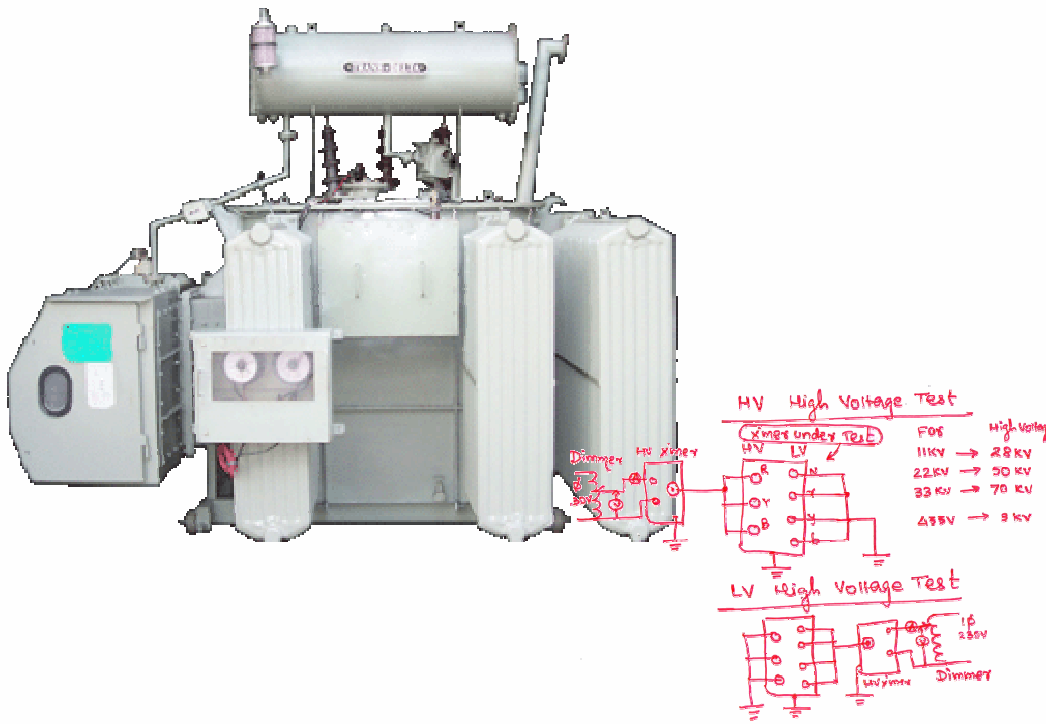
The company capable of performing the test service of distribution, voltage, current and power transformers at all voltage levels, and are as follows:

Chemical analysis for transformer oil:

- Dissolved Gas Analysis

Electrical tests and analysis:

- Transformation Ratio measurement
- Winding Resistance measurement
- Insulation Resistance measurement
- Polarity Test measurement
- Excitation Current test
- No load losses and excitation current
- Load losses with reduced current and short circuit impedances





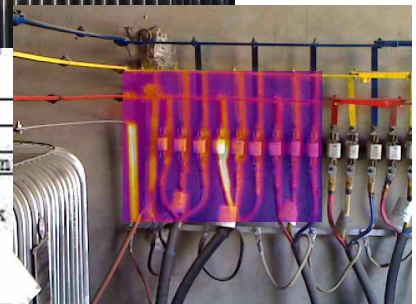
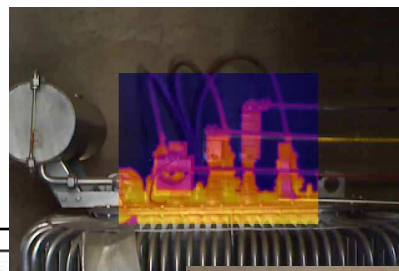
Testing Services

Thermal Imaging Survey for Hotspots

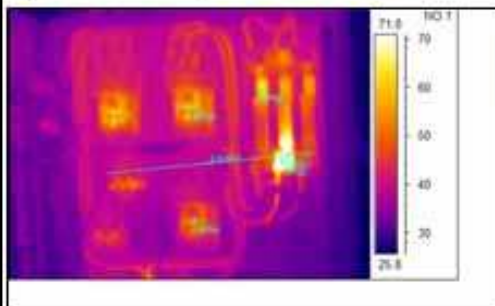
The company has the most advanced Infrared thermal imaging camera as well as the infrared thermometers for both short and long distances targets.

Covering most of the temperature measurements applications such as; transformers, distribution panels, bus bars, circuit breakers connection points, capacitors, ... etc,

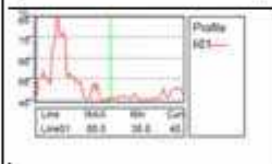
Professional reports with recommendations for the actions to be taken.



| | | |
|---------------------|--------------------------------|--|
| Techno Power | | Energy |
| IR Survey | | |
| Fault Frame Work | | |
| Date | 12- April- 2010 | Recommended Action Check, clean and fix |
| Area | Factory | |
| Part | Panel | |
| Fault Information | Fuse L2 Over temperature fault | |
| Severity | H. Alert | |
| Observation | Check the Fuse Holder L2 | |



| Spot/zone | Value |
|------------------|---------|
| SP01 Temperature | 80.0 °C |
| SP02 Temperature | 70.4 °C |
| SP03 Temperature | 46.4 °C |
| SP04 Temperature | 27.0 °C |
| SP05 Temperature | 22.3 °C |



About TechnoPower

TechnoPower is an Egyptian company works in the fields of supplying electrical testing equipments and providing electrical testing services for the electricity network equipments through a team of highly qualified specialists capable of supporting our clients in our field.

First: Sales

TechnoPower represents major international companies in the field of testing and measurements to meet the needs of the Egyptian market with efficient and high technology products.

The company has a qualified maintenance laboratory and specialists with high technical expertise for the maintenance and repair of all instrumentation and test equipments.

Second: Testing Services

TechnoPower has integrated portable test systems for different testing applications and conducting these tests highly qualified engineers capable of performing the tests on site for all the electrical equipments according to the international standards and following the safety regulations.

- Cable Fault Location for Low voltage and Medium voltage networks
- Low and Medium voltage cable Testing
- Transformers testing
- Circuit Breakers testing
- Thermal imaging services for detection of the hot spots



intereng[®]

InterEng GmbH Kabelmesstechnik (Germany)



Optris GmbH (Germany)

Techno Power

تكنو باور

Contact Details:

Tel: +2 02 33372270

Fax: +2 02 33372280

Mob: +2 010 05176212

E-mail: sales@technopowereg.com

Web: www.technopowereg.com

29 Mohamed Khalaf St., 1st Floor / Giza / Egypt

Tel: (02) 33372270 Fax: (02) 33372280 Email: sales@technopowereg.com