



POWER ELECTRONICAL
High Voltage Dielectric Diagnostics



Rotating Machine Field Services



HV/EHV Equipment Testing



Transformer Oil Testing Lab



Electro Technical Calibration Lab



Dielectric Diagnostic Products



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RLA / Diagnostic Testing Of Transformer

On Line Testing

- » Partial Discharge Measurement And Localization
- » Thermography
- » On Line Moisture Content Measurement
- » Transformer Oil (Screening, DGA and Furan) Test

Off Line Testing

- » Dielectric Frequency Response Analysis [DFR]
- » Sweep Frequency Response Analysis Measurement
- » Capacitance And Tan Delta Measurement Of Transformer
- » Transformer Turns Ratio Measurement
- » Magnetic Balance Measurement
- » Excitation Current Measurement
- » Static Winding Resistance Measurement
- » Dynamic Winding Resistance Measurement for OLTC
- » Insulation Resistance And Polarization Index Measurement
- » OTI And WTI Meter Calibration
- » Functional Checking Of Protection Devices Like PRV, Buchholz Relay, MOG, OTI, WTI



RLA / Diagnostic Testing of Motor and Generator

Online Mode

- » Partial Discharge Measurement
- » Vibrations Spectrum Analysis
- » Thermography
- » Electrical Signature Analysis (ESA)
- » Current Spectrum Analysis

Off Line Mode

- » Capacitance And Tan Delta Test
- » Dielectric Discharge Test
- » Partial Discharge Test
- » I.R./P.I. Measurement
- » HV DC Test
- » RTD - Resistance And IR check
- » Thermostat Resistance
- » Diode Check
- » Surge Comparison Test
- » Motor Circuit Analysis (MCA)
- » Microscopic / Visual Inspection
- » Stator & Rotor Winding Resistance
- » Recurrent Surge Oscilloscope (RSO)
- » Rotor Winding Impedance
- » Rotor Pole Drop Test
- » Exciter/ PMG Tests

Off line Mode- for Generator

- » Visual Inspection Of Stator And Rotor
- » Endoscopic Inspection
- » EL-CID Test On Stator Core
- » Wedge Tapping Test Or Wedge Deflection Test

We Also Provide

Dry Ice Cleaning/CO2 Cleaning:

- » Effective, Efficient and time saving cleaning of Electrical apparatus like Motors, Generators etc.
- » Dry Ice Cleaning or CO2 cleaning is a process where dry Ice (Solid form of carbon dioxide) is accelerated in a pressurized air stream and directed at a surface in order to clean it.

Advantages of Dry Ice/CO2 Cleaning:

- » It is a non-abrasive
- » It is Non-conductive cleaning method
- » Does not leave secondary contaminants such as dangerous solvents as dry ice sublimates at room temperature.
- » Saves downtime as the process is less time-consuming.

Note: For Motors and Generators, our expertise does not stop at cleaning; we complete the job by applying right combinations of varnishes, resins and drying at appropriate temperatures.

Condition Monitoring Switchyard Equipment

- **Off Line Testing- CT / PT / CVT / LA / CC**
 - » Capacitance And Tan Delta Measurement
 - » Insulation Resistance
 - » Ratio, Knee Point Voltage, Polarity, RCT (Only For CT/PT/CVT)
 - » Dissolved Gas Analysis And Sampling (Only For CT/Bushing)
- **Off Line Testing- Circuit Breaker**
 - » Capacitance And Tan Delta Measurement
 - » Insulation Resistance Measurement
 - » Dynamic Contact Resistance Measurement (DCRM)
 - » Static Contact Resistance Measurement (CRM)
 - » Timing Measurement
 - » SF6 Gas Dew Point Measurement
 - » SF6 Gas Leakage Test
 - » Vacuum Interrupter Test (VIDAR- Only For VCB)
 - » Functional Check (Remote Trial)
- **Online Mode**
 - » Partial Discharge Measurement (For All Switchyard Equipment)
 - » Leakage Current Measurement (Only For LA)
 - » Thermography (For All MV/EHV Equipments)

We Also Undertaking

- » Erection, Comm. And Testing Of EHV Switchyard Equipments.
 - » Preparation Of Cable Schedule, Laying And Termination.
- (Upto 765kV)



Condition Monitoring Of Transformer Oil

NABL Accredited Mobile / Stationary Lab

Transformer Mineral Insulating Oil Condition

- Physical Parameters

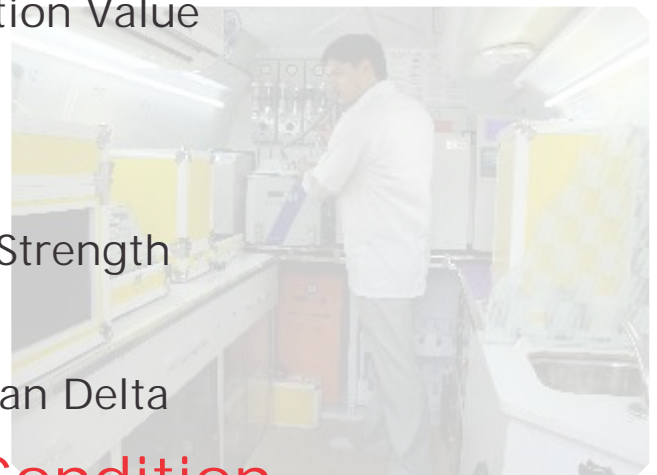
- » Appearance
- » Interfacial Tension
- » Flash Point
- » Pour Point
- » Density
- » Kinematic Viscosity

- Chemical Parameters

- » Water Content
- » Total Acid Number / Neutralization Value
- » Sediments And Sludge

- Electrical Parameters

- » Breakdown Voltage / Dielectric Strength
- » Specific Resistance / Resistivity
- » Dielectric Dissipation Factor / Tan Delta



Transformer Internal Condition

- » Dissolved Gas Analysis (DGA)

Transformer Insulating Paper Condition

- » Furanic Compound Analysis (Furans)

- Other Special Test As Per Customer Requirement.
- Testing Packages as per IS/IEC/ASTM Standards.

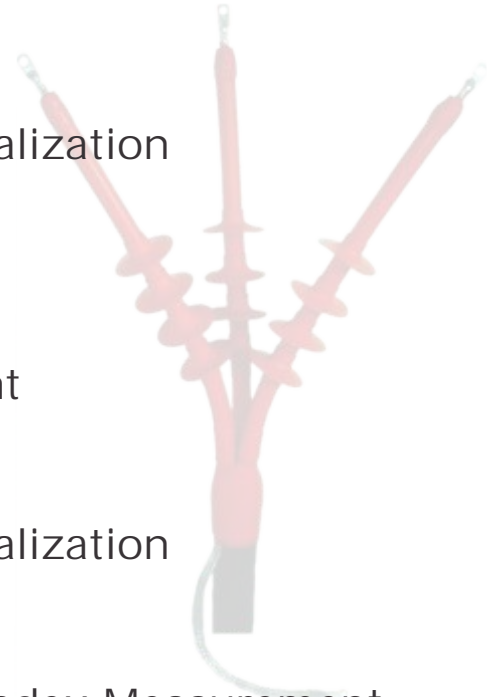
Diagnostic Testing of Power Cables

On Line Testing

- » Partial Discharge Measurement And Localization

Off Line Testing

- » Capacitance And Tan Delta Measurement
- » Very Low Frequency (VLF) Testing
- » Partial Discharge Measurement And Localization
- » HV-DC Test
- » Insulation Resistance And Polarization Index Measurement



Switchgear and Protection

- » Supply, Installation & Comm. of MV/HV Electrical Installation.
- » Complete Retrofitting Solution For LV / MV / EHV Switchgear
- » Any Type Of LV/MV C and R Panel Modification / Revamping
- » Trouble Shooting & Overhauling of All Type of MV Switchgear
- » MV/EHV Electrical System Testing and Commissioning Work
- » MV/EHV Isolator Maintenance and Retrofitting
- » Testing and Coordination of all Types of Relay



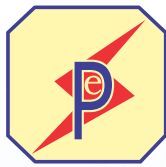
RECOGNITIONS



OUR VALUABLE CUSTOMERS.....



AND MANY MORE.....



POWER ELECTRONICAL
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OUR ACHIEVEMENTS.....



AND MANY MORE.....