



ELECTRICAL RESEARCH AND DEVELOPMENT ASSOCIATION



TESTING OF TRANSFORMER AND ITS COMPONENTS

More than Four Decades of Services to Electrical Utilities & Industries

ERDA is a premier autonomous organisation offering Testing & Evaluation, Field Services, Research & Development and Expert Services globally to Power Utilities and Manufacturing Industries in the Power Sector. Our expertise is aligned across three specific verticals, the facilities for which are spread across 25 acres of land in Vadodara, Gujarat.

ERDA Operates from 3 Site Laboratories - ERDA (North) at Gurgaon, ERDA (West) at Rabale & ERDA (South) at Rajahmundry to serve customers at various geographical locations of India.

1. TESTING & EVALUATION

BIS Accredited Distribution Transformer Testing (As Per IS: 1180-2014) Laboratory at

- ERDA Makarpura, Vadodara (up to 2.5 MVA, 33 kV)
- ERDA (West) Rabale, Navi Mumbai (up to 200 kVA, 33 kV)

Transformer Testing & Evaluation Services:

- Distribution Transformer as per IS: 1180-2014
- Power Transformer as per IS: 2026 & IEC: 60076
- CRGO Steel Lamination
- Testing of Transformer Oil (Including DGA & Furan)
- Evaluation of Solid Insulating Materials (Paper / Pressboard / Lamination Wood and Boards / Cork Sheets etc.)
- Paper Covered Copper & Aluminium Conductor
- High Voltage Bushing (up to 66 kV)



120kA, 570V - India's Largest Online Short Circuit Test Facility



NABL Accredited

2. FIELD SERVICES

- Routine Tests, Temperature Rise Tests & Specified Test Facilities up to 100 MVA, 220 kV at Manufacturers' end (NABL Accredited)
- Electrical Diagnostics (Completed on more than 350 Nos. of Transformers):
 - Health Index of Power Transformer
 - Failure Analysis
 - Sweep Frequency Response Analysis (SFRA)
 - Dielectric Response Analysis (DIRANA)
 - Condition Monitoring by Capacitance & Tan - Delta Measurement
 - Partial Discharge Measurement
 - Harmonic Measurement of magnetizing current

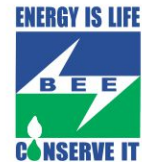
3. RESEARCH & DEVELOPMENT AND EXPERT SERVICES

Online Fault Sensor of Power Transformer:

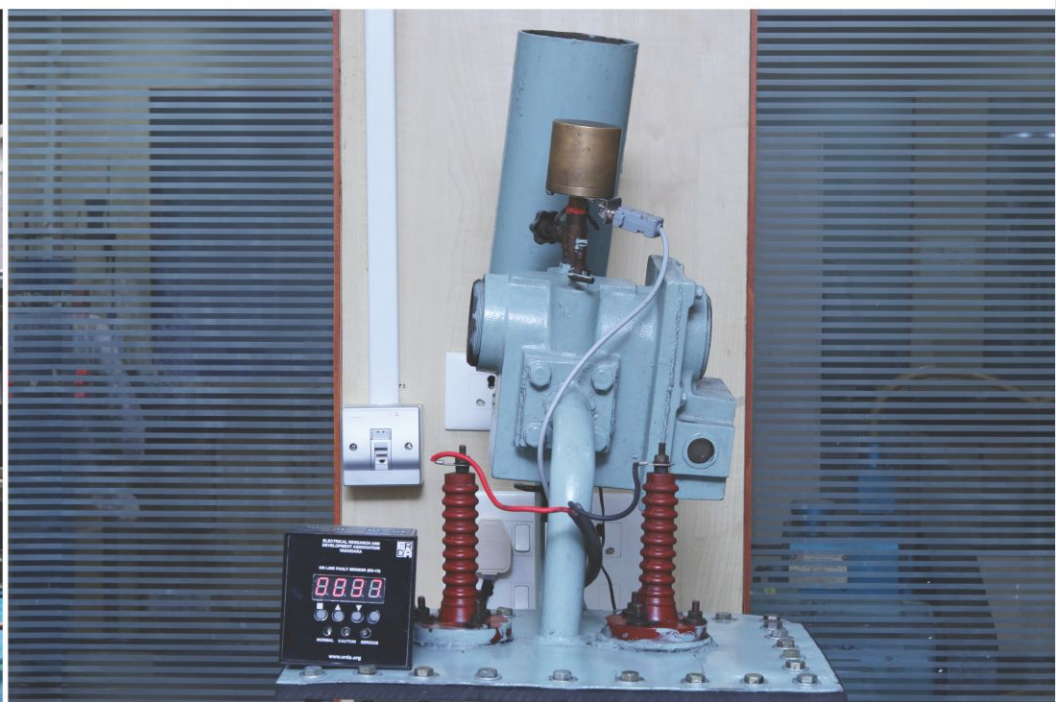
Objective: To find a solution whereby fault can be detected at very early stage

ERDA Solution: During the fault condition, either thermal and / or electrical types, oil gets decomposed producing different gases. ERDA's Online Fault Sensor senses the evolved hydrogen collected at Buchholzs Relays, even when the gas releases at a very low level.

Benefits: Early Detection of Faults, allowing for planning of maintenance or replacement accordingly (hydrogen level as low as 50 PPM can be detected), User connected Alarm and Tripping Levels, Daily Loggin of the hydrogen generation inside power transformer & remote monitoring.



Field Services



Online Fault Sensor of Power Transformer



ERDA'S NEW STATE OF THE ART LABORATORY AT RABALE, NAVI MUMBAI

- Distribution Transformer (Up to 33 kV, 200 kVA BIS Accredited Lab)
- High Voltage Impulse Testing Facility Upto 300 kVp
- Testing of Transformer Oil (Including DGA & Furan)
- Current Transformer (Up to 3200 A, 0.05 Class)
- Voltage Transformer (Up to 33 kV, 0.2 Class)
- Electro Technical Calibration
- Energy Meter



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