

CTR

CTR MANUFACTURING INDUSTRIES LTD INCREDIBLE SOLUTIONS



Diagnostic Products

1. Solid Insulation Moisture Measurement System (SIMMS) :

- Suitable for all oil filled transformers.
- Portable and light in weight.
- Using Relative Humidity theory, the TRACONAL software of SIMMS determines moisture percent in the solid insulation.
- Precisely measures Moisture content in Transformer Oil and Solid Insulation.
- Estimates maximum safe operating temperature for the transformer and
- Breakdown Voltage (BDV) variation trend with oil temperature.
- Also predicts quantity of water that needs to be separated to attain desired operational condition. Installed and operated online without outage of transformer. Since no oil is removed, no need to replace oil.

2. OLTC Analyser :

- Period base maintenance is now being replaced by condition based maintenance.
- The only moving parts of power transformers are in the On Load Tap Changer (OLTC).

- As such parts are suffer from various aging mechanisms caused by mechanical malfunction, increased contact resistance, contact wear etc.
- New technology seeks to extend the service interval and monitor OLTC condition to avert catastrophic failure, reduce maintenance cost and increase reliability.
- Use of this diagnostic technique reduces required number of maintenance visits, cost reduction in the number of catastrophic failures and interruptions to supply increasing the reliability of power delivery.

3. Transformer contamination analysis (TRACONAL) software:

A software analysis system that mainly converts oil sampling data (Cw and TTS) into the average water content (Cp weight %) of the transformer cellulose materials. TRACONAL program based on Cp value, enables easy simulation and prediction of any operational state of the given transformer inclusive of the oil dielectric strength. Tracks degradation rate of the paper and suggests preventative measures. Easy, explicit and comprehensible moisture and dielectric diagnostic of power transformers. Records basic description of the dielectric behaviour of the transformer by means of TLC, the Temperature Loading Curve which corresponds to the change of the dielectric strength of the oil with the temperature of the transformer and further verification of the TLC by means of already and directly measured Ud values. Determines the amount of water to be removed. Estimates ageing intensity. Identifies potential sources of the decrease for the dielectric strength of the oil.