

KORONA

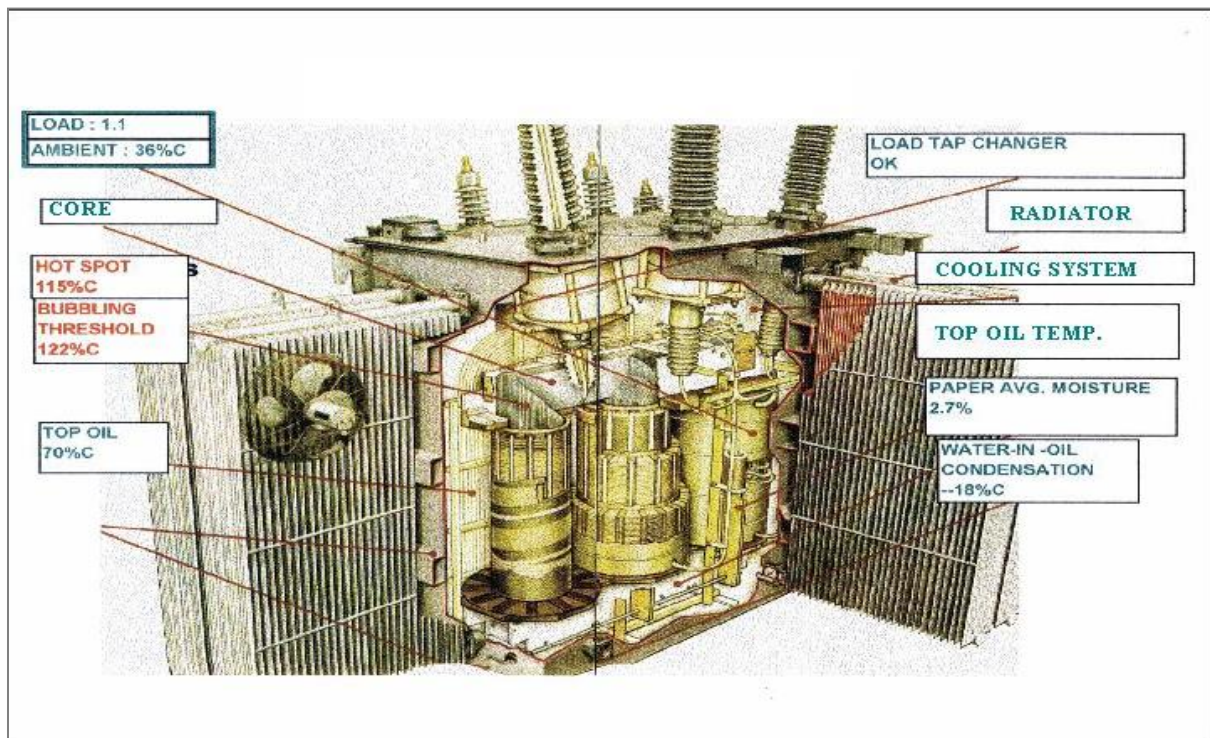


On-line transformer monitoring

Transformer owners have always been faced with the challenge of a given transformer optimizing the performance and increasing its useful life expectancy.

Idea behind on-line monitoring is to continually and accurately diagnose the current condition and capability of the transformer, provide an alert "Just in Time" maintenance action when required.

What are we looking for?



CLIENTS

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Being Pulled in Two Directions

HIGHER DEMANDS

- Higher distribution loads
- Increasing transmission transactions
- Improving safety
- Enhancing reliability
- Enhancing T&D equipment availability
- Reducing operating costs
- Improving power quality supply to customer
- Eliminating repair costs after failure



AGING EQUIPMENT, LIMITED RESOURCES

- Aging equipment
- Reducing maintenance budgets
- Losing experienced personnel and available resources
- Pressure from shareholders
- Competition is mounting steadily

Goals of On-Line Monitoring

- Maintenance Optimization
- Failure Avoidance
- Increase Reliability
- Maximize Revenue
- Transformer Life Extension

Benefits of On-line Monitoring

- Loading T&D equipment for max. efficiency
- Managing & extending the life of equipment
- Detecting signs of failure conditions
- Reducing unscheduled outages and failures
- Deferring upgrade capital costs
- Taking advantage of spot market opportunity



TPP Šoštanj, Slovenia (2005)
Installation of on-line monitoring
system on two step-up transformers

Advantages of Model Analysis

- Reduce the amount of data to analyse and make it more "Friendly"
- Facilitate the detection of abnormal condition
- Reduce the time required for Interpretation
- Assistance for transformer operation
- Powerful alarms Algorithms
- Based on international standards such as IEEE, IEC
- Tailor each model specifically to the transformer