

TEC – Intelligent transformer monitoring system

Keeping an eye on your transformer on-line

On-line monitoring is the better tool a transformer user may have to increase performance, reduce failure risks and cut maintenance costs.

A monitoring system must be safe, reliable, easy to use and cost effective. TEC meets all these features and adds intelligence; using standard sensors and transformer knowledge, TEC performs a complete evaluation of the operating conditions, both current and historical. Furthermore, it can simulate different service conditions and forecast their impact on the transformer life. TEC is available for new and existing transformers, both ABB and other brands



Low complexity

Easy to install and use. Modular and expandable electronic architecture. Few sensors required. No special computer or software needed. User-friendly interface.

Intelligent

TEC integrates ABB's transformer knowledge. A model of the transformer and its working conditions is generated, and then by comparing the measured values with the parameters calculated by the model, the system is able to early detect malfunctions and discrepancies. The model can also simulate load conditions and predict the hot-spot temperature.

Economical

TEC offers more functionality than other systems of similar price, besides the intelligence. TEC needs no maintenance. TEC will help you cut transformer operational and maintenance cost. Long lifetime due to use of microprocessors and military components.

Proven technology

Large fleet of installed units world-wide. Other benefits are:

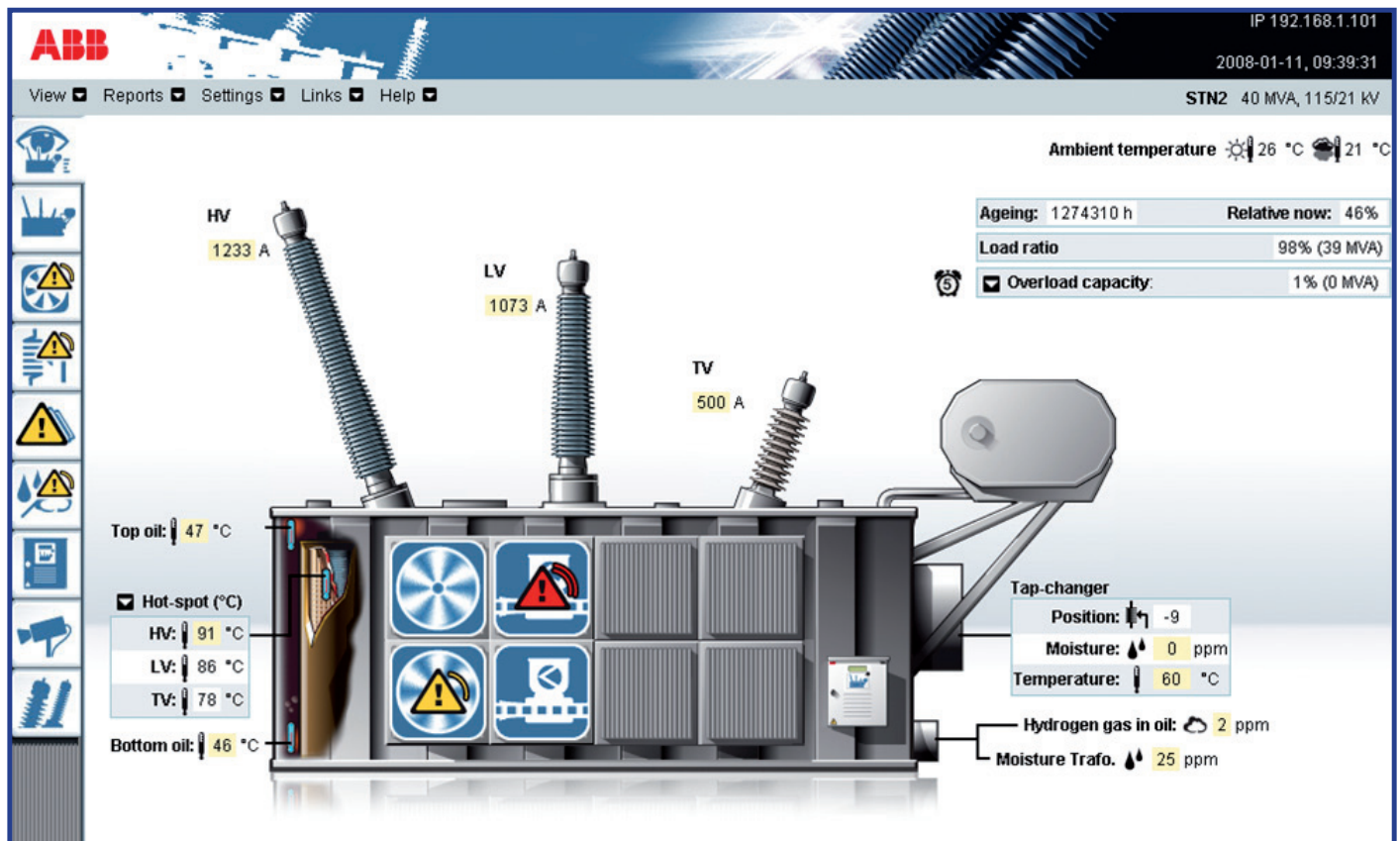
- Early detection of malfunctions
- Overload assistance
- Condition assessment
- Improved maintenance planning
- Real time data
- Remote access
- Stored data over long period
- Prognosis intelligence
- Advanced cooling control



TEC, the solution

TEC is modular and expandable for additional requirements that may be needed in the future, its functionality may include any of the following parameters:

- Top oil and bottom oil temperature
- Hot-spot temperature on HV, LV and TV
- Load
- Current on HV, LV and TV
- Transformer aging
- Hot-spot forecast
- Overload capability
- Transformer temperature balance
- Gas and moisture in transformer oil
- Bubbling temperature in transformer
- OLTC position
- Contact wear calculation for both conventional and vacuum tap-changers
- OLTC time in position
- OLTC position count
- OLTC temperature
- OLTC temperature balance
- Advanced cooling control
- Monitoring of coolers
- Power consumption in cooler groups
- Condition in TEC control cabinet
- Event recording
- Web based graphical user interface
- Warnings and alarms
- Webcam
- Dry contacts for warning and alarm signals to SCADA
- Remote access through Ethernet connection



For more information please contact:

ABB AB

Components

SE-771 80 Ludvika, Sweden

Phone: +46 240 78 20 00

Fax: +46 240 121 57

E-Mail: sales@se.abb.com

www.abb.com/electricalcomponents