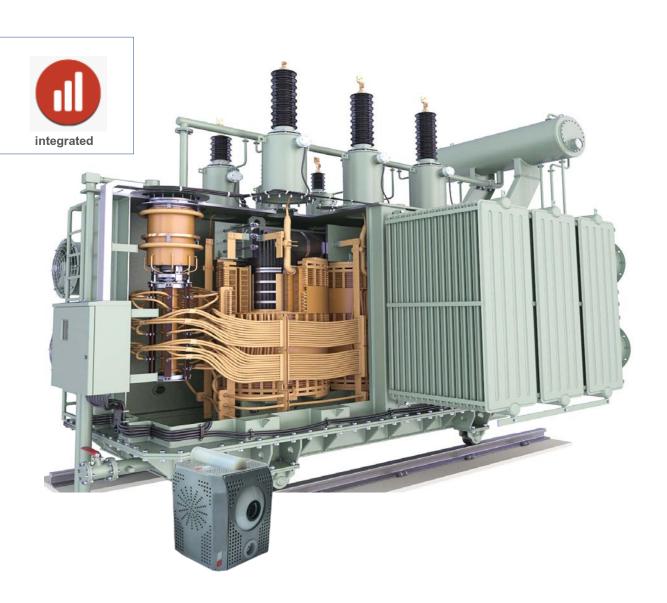
Transformer Insight Core, Windings, Tap changer and connections Test and inspection Robot



www.powerview-energy.com









Transformer Insight Core, Windings, Tap changer and connections Test and inspection Robot



Provides safe service inspection on site

Saves time



Provides visual, thermal and corona test on power transformer under test voltages & current



Capable of finding and locating hidden faults not possible to detect with other tests



The most affordable reliable service decision

Description

Power transformers ,being one of the most expensive to purchase service or replace -are the of the key elements on which the Power networks relays on.

Downsides are relatively big cost labor, downtime, weather risk, the possibility not to find the fault, Inspection in service requires generally very expensive transport.

Typical failures

The market prices today push the Transformers design to smaller and smaller units increasing the electrical and thermal stress on materials .

Pour craftsmanship , design , materials imperfection, improper maintenance are among the key factors which lead to transformer failure .

Major part of the transformer faults can be identified with monitoring and electrical tests . Finding a fault generally means that the most expensive part is about to follow. (Either onsite or inspection in service to evaluate the fault and estimate the repair need)

An onsite inspection requires the oil to be drained in storage tanks so that the transformer core can be inspected. The limitations are the impossibilities to test higher voltages and higher currents . The costs and downtime vary depending on the transformer size but generally easily exceeds 100.000 USD



The test and inspection robot



The Transformer Insight Core, Windings , Tap changer and connections Test and inspection robot is the first test robot which pinpoints and evaluates transformer PD and hotspots making it possible to make right service decision and save time and money

It is made of special materials designed to withstand magnetic electric and thermal stress (normally present in transformers) and at the same time do not affect the gassing acidity and oxidation stability of the transformer oil.



Condition based Reliable service decision in no time

The robot provides simultaneous visual , PD and thermal inspection without training the transformer oil .It is inserted through top manhole and controlled by sensors and engineer on site. During the test high voltage can be applied on the low or high voltage side of the transformer and the robot will pinpoint the exact PD source. For detecting shorted turns currents up to 100 A can be applied on the windings and the hotspot will be pinpointed by the robot.

The robot is also equipped with numerous sensors and cameras to provide in-depth visual inspection of the transformer

The complete inspection only takes couple of hours and the transformer can be back in service in no time while valuable data is gained which can help make the right service decision based on the actual transformer condition

The system is supported by the inter-national organization for Electrical engineering POWER VIEW and is integrated in the software.



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