

## Transformer Monitoring/Protection Products

Transformers are one of the most critical and valuable components in power systems especially in distribution grids. They are prone to different kinds of faults and problems. To reach to an acceptable level of safety and reliability in power grids, real time monitoring of the grid is considered as an essential requirement. Real time monitoring of distribution transformer means measuring and monitoring transformer's critical electrical parameters like voltage, current, harmonics, active, reactive and apparent power, power factor and ambient temperature etc.

Adding a control mechanism to a monitoring system and making it capable of disconnecting the transformer from the load in emergency cases makes the system even more efficient. Monitoring transformers not only increases grid security but also can increase transformers' lifetime and time between failures.

TMS is an intelligent unit, which plays critical role in loss reduction solutions. It is designed according to sophisticated theories to perform multi tasks in real time. It is a high accuracy three-phase smart meter, at the same time it acts as a circuit breaker and also works as power quality monitoring device. TMS uses GPRS communication channel to communicate with master station (Up-Link). It provides:

- On-demand/scheduled reading
- Remote Device Programming
- Event and Alarm Management
- Demand Side Management
- Remote Load Control
- Power Quality Information