ROTOR FLUX MONITORING

Variances in the magnetic flux within a generator indicates deterioration of winding insulation. Whether a result of thermal wear, large variation on load, contamination, or other causes, the impact to efficient generation is significant. Imbalances within the rotor damages insulation, which in turn degrades the generator’s output capacity and increases vibrations, further damaging the insulation, which ultimately leads to a forced outage.

THE POWER OF INNOVATION

Straightforward User Interface displays all the actionable information required to effectively manage the flux conditions on a generator. Note the Alarm and the highlighted Slot Short, both in Slot Table and the Pole Graphs.

For more information, contact us:

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Two analyses are performed:
- High-speed flux signals identify shorted turns and severity
- Flux waveforms and generator loads are archived for historical trend analysis

User defined thresholds
- 50 KHz Acquisition Rate
- Filtering
- Detection Threshold
- Alarm Levels - Per Coil & Total Flux
- Easy Generator input parameters

Automatic cycle finding eliminates need for key phaser

Connects to most SCADA and historians via Modbus TCP
- System reports flux extrema and zero crossing

Creates a generator library
- Records waveforms when generator load changes by 1% or at plant defined level
- Critical for identification of worsening shorts indexed against time and load
- Manage the Maintenance Cycle through real-time measurements
- Zero crossing may be used as a proxy for load

Ability to monitor up to two generators simultaneously

Integrates with most commonly installed flux probes

Here is a brief diagram of the Cutsforth Rotor Flux Monitoring System. You will note the key difference: specifically, the capability to compare historical performance with current performance, then further indexed against load conditions. This key difference affords the power producer the capability to better manage maintenance events, including expensive rewinds, and minimize the risk of unplanned outages.