Franklin Electric

Grid Solutions

BUSHING MONITOR

FEATURES

- Watches for the Number One cause of Large Transformer Failure
- Provides Earliest Detection of Insipient Problems
- Measures Power Factor, Dissipation Factor, and Capacitance at Full System Operating Voltage
- Works with condenser bushings of any material, CVTs, free-standing CTs, and PTs.
- High accuracy, stability, and fast response using four simultaneous measuring techniques

SYSTEM INCLUDES

- Bushing sensors with connection cables
- Monitor system including mounting plate, power supply, field terminals
- Optional Stainless Steel IP55 cabinet

SERVICES AVAILABLE

- Skilled and Experienced field service team for installation and commissioning
- Expert Analysis of field data and customer support
- On-site training courses
- Design and commissioning of communication network

TECHNICAL SPECIFICATIONS

Measurements		
Measuring Quantity	Range	Accuracy
Leakage Current	0-140 mA AC	±1.5 % of reading
Power Factor/Dissipation Factor Capacitance	0-100% 100-5000 pF	±0.045 % of reading ±1.0 % of reading
Ø Angle of Imbalance Current	0-360°	±1.0 % of reading

Measurement Modes	
Sum of Three Current	Standard with 6 currents
Adjacent Phase Reference	
Phase Comparison	
Reference Test (using 3 PTs)	Optional with 3 currents and 3 voltages
Reference Test (using 6 PTs)	Optional with 6 voltages

Monitor Analysis Software Platform	
Alarm Setpoints	Algorithm-based alarms
Graphical User Interface	Trending, comparisons

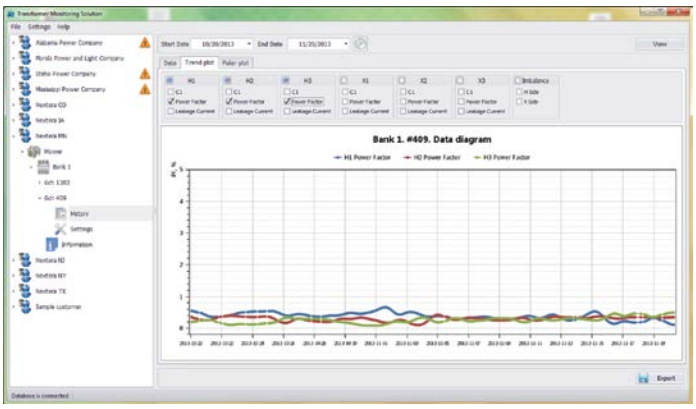
General Specifications	
Supply Voltage	85-264 VAC 47-63 Hz, 120-370 VDC
Power Consumption	Max. 24 VA
Operating Temperature	-40 °C - +65 °C
Output Relays	Ohmically isolated, Programmable
Communication	RS 232, RS-485, DNP3.0, MODBUS

Franklin Electric

Grid Solutions

FRANKLIN GRID SOLUTIONS
BUSHING MONITORING SYSTEM

EXAMPLE
BUSHING SENSOR



ANALYSIS SOFTWARE

EASY AND SAFE
BUSHING SENSORS

SENSORS ARE AVAILABLE FOR ANY TYPE OF BUSHING THROUGH 765 KV

Two example bushing types with similar burned paper layers and evidence of partial discharge at foil edge

ON-LINE MONITORING OF POWER FACTOR PREVENTED THESE BUSHINGS FROM FAILING IN-SERVICE.

Grid Solutions
34 Spring Hill Road, Saco, Maine 04072 USA
franklingrid.com