



The Partial Discharge Experts

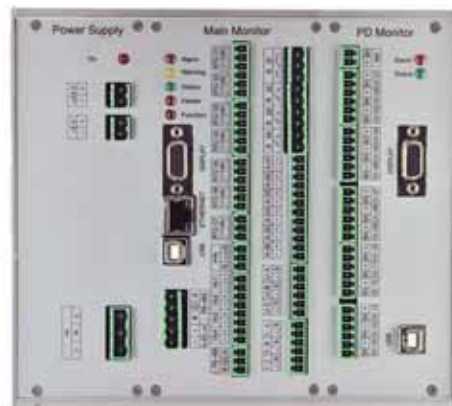
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*The Most Comprehensive
Continuous Partial Discharge
Monitor on the Market!*

Rotating Machine Monitor

*Improving Plant and
Equipment Reliability
Through Innovation
and Service*



The RMM (Rotating Machine Monitor) is a microprocessor-based device that continuously monitors the insulation system as well as other parameters such as power, thermal and mechanical condition of a medium-voltage motor, turbine generator or hydro generator. The basic standalone unit shown in the picture consists of three modules (from left to right): Power Supply, Main CPU Module and a 15-channel Partial Discharge Module.

Up to two years of data can be stored in the unit, and no external connection to a computer is required. The RMM is a complete standalone unit that provides full functionality including IEC-defined Partial Discharge quantities, trending of key values, 2-D and 3-D data presentation as well as N-Q distributions.

With simultaneous data acquisition on all channels, the ability to provide time of flight measurements and/or pulse polarity detection to determine pulse direction, provides unique capabilities for noise cancellation. No other monitor on the market has all of these capabilities built into one device.

The basic unit may be extended with additional modules, allowing for more economical or accurate ways of monitoring multiple objects. RMM can have up to six PD modules, allowing monitoring up to six motors (within allowable signal cable distance) with one monitor.

A separate vibration module may be installed and used in conjunction with the four vibration signal channels located on the main CPU module. This will allow for remote vibration monitoring of the machine and the load if other vibration monitoring equipment is not installed.

The RMM offers a variety of additional inputs/outputs for monitoring temperatures, humidity, pressures, motor frame or shaft vibrations, shaft currents, flux probe, voltages and currents, power and current signature analysis along with partial discharges. With the dry relay contacts and a 4-20 mA output, the RMM can easily be connected to the plant DCS or SCADA system.

Working to Make the Possible Impossible

Rotating Machine Monitor

Three communication interfaces including USB, Ethernet and an Isolated RS-485 providing flexibility for monitor networking, as well as for easy local communication to the instrument. All configuration and other features of RMM are available for any higher-level plant automation system over MODBUS RTU communication protocol. A built-in Web Server Page is available showing the current PD levels and trending graphs. The RMM comes with IHM (Insulation Health Monitoring) software for data presentation and analysis and maintenance planning.

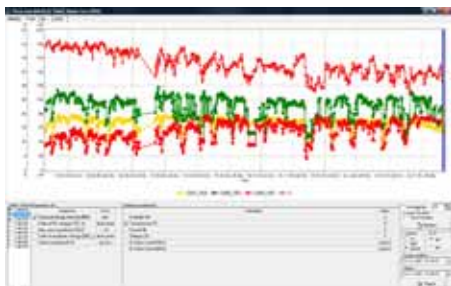
Partial Discharge Sensors

The RMM accepts signals from a wide variety of PD sensors including Coupling Capacitors, Radio Frequency Current Transformers (RFCT), our Type GS Sensors and our RTD Module. EDI uses the existing RTDs already embedded in the winding as a PD sensor in CONJUNCTION with the sensors installed at the line terminals. Since

the PD signals attenuate very quickly, sensors installed at the line terminals will only “see” about 10 - 15% of the winding. By adding the PD signals from the RTDs, much more of the winding can be monitored. The RTD module is installed in series with the existing RTD wiring and does not affect your winding temperature monitoring equipment. The PD signal is then extracted from the RTD wires and is analyzed by the RMM. For a complete discussion of Signal Attenuation and Measurement Bandwidth, please see our Application Guide on this subject.

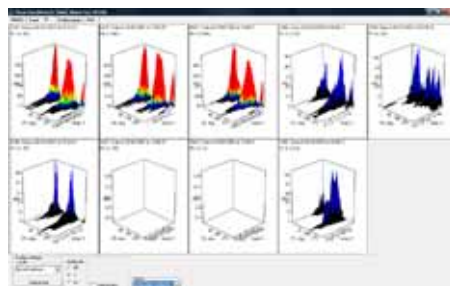
IHM Software

The IHM (Insulation Health Monitoring) is a versatile software product supporting all EDI Inc. portable instruments and continuous insulation condition-monitoring systems that may be found on HV transformers, MV motors, switchgear, cables and other. IHM allows configuring instrumentation, downloading and storing the data into PC memory and data presentation and analysis.



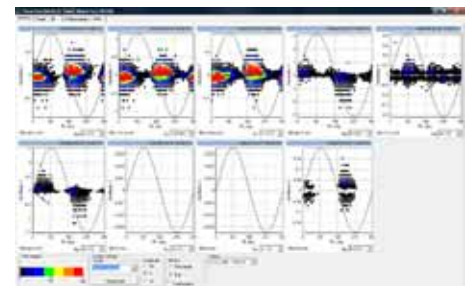
Trending Plot

Multiple additional parameters may be recorded and stored by RMM along with Partial Discharges. Trending display allows for viewing historical data and correlation between various measured characteristics.



3-D Plot

This is a common way to present phase-resolved Partial Discharge data and investigate its structure.



PRPDD Plot

PRPDD plot is an effective way to analyze a type of Partial Discharge, PD assignment in three-phase voltage system and other PD characteristics.

For Application Assistance, Please See Our Application Guides For Motors And Generators