

PD211

Rugged Partial Discharge Monitoring Module for OEMs



Rugged Monitoring PD211 is a compact design, designed for reliable Partial Discharge (PD) Monitoring Module for Transformers, Switchgears, GIS and Power Cable Terminations.

PD211 is based on the UHF (Ultra High Frequency) technology for PD signal acquisition and analysis. The Monitor is a combination of reliability and user-friendly configuration software. It has two variants with 04 channel and 08 channels, that can connect to 4 and 8 UHF-PD sensors respectively. The system can be integrated with any UHF PD sensors that are having response between 300MHz to 2000MHz.

The PD211 connects to the UHF PD sensors installed at the MV/HV assets. It measures the Ultra High Frequency (UHF) signals emitted by the PD Faults in HV/MV assets. The UHF signals are then analyzed for PD activity and categorization of Internal PD, External

PD and Noise Signals. Internal PD signals are captured and stored for further analysis such as PRPD, PD Amplitude, Discharge Rate and trending. The PD amplitude, discharge rate, PRPD are sent to the third-party system via Modbus (RTU) protocol using built-in serial (RS-485) port or TCP/IP over RJ45. The data is stored in the module and sent to thirdparty system via IEC61850, MQTT, DNP3.

Module is equipped with powerful webserver packed with all features for a standalone monitoring. Together with communication protocols, modules offers amplitude, discharge rate and PRPD data over MQTT, Modbus, IEC61850 and DNP3. PD Live gives enriched user exeprience with high resolution trends, PRPD, and waveform graphs.

Applications

- Online continuous partial discharge monitoring
- Online PD measurement during HV AC testing
- Multiple point PD monitoring
- PD monitoring in Transformer using UHF PD Sensors
- PD Monitoring in GIS using UHF PD Sensors
- PD Monitoring in MV Switchgear using UHF PD Sensors
- PD Monitoring in Power Cables Terminations UHF PD Sensors

Benefits

- Suitable for OEM-type applications (TMS, Gateways)
- Multiple mounting options - Din-Rail and Direct (Bare-board)
- Cost optimized solution for Partial Discharge monitoring
- Software designed for integration into monitoring systems /gateways
- Robust datalogging and Analytics
- Customizable according to customer specific applications
- Most accurate PD analysis with advanced noise gating
- Highly robust and safe monitoring systems

Technical Specifications

Number of Channels	4 or 8 Channels
Sampling Rate	2 MS/s
Acquisition Bandwidth	300MHz - 2000MHz
Vertical Resolution	16 Bit
PD Sensitivity	-80dBm to 0dBm
Memory (eMMC)	64GB/128GB Fixed
Memory (uSD)	upto 64GB
Compatible PD Sensors	Any Ultra High Frequency (UHF) PD Sensors with sensitivity 100Mhz - 2000MHz.
Synchronization Inputs	AC Zero - Crossing SyncA: 1 channel, 16 Bit (0-100Vrms), 2Ms/s, Dc - 1kHz
Sync Input Voltage	SyncA channel can be used for voltage measurement
Serial Port	RS-485 with Modbus RTU
Configuration Port	Ethernet Port for configuration (RJ45)
Operating Temperature	-30 to 70 °C
Storage Temperature	-40 to 85 °C
Dimensions	180.00 mm x 161.05 mm x 60.00 mm
Humidity	95% Non Condensing
Power Input	24V
Power Consumption	25W

Ordering Code

