

UPM601-C

Advanced UHF PD Monitoring for Continuous Asset Reliability



UPM601-C is an advanced Partial Discharge monitoring system, enabling 24/7 insulation defect detection in high-voltage assets. It also facilitates offline PD measurements during HV AC testing for comprehensive condition assessment and maintenance planning.

UPM601-C is Rugged Monitoring's advanced Partial Discharge (PD) monitoring solution, designed to detect and analyze ultra-high-frequency (UHF) signals in electrical assets. By providing real-time insights into insulation degradation, it enables early fault detection and proactive maintenance, reducing the risk of unexpected failures. With the ability to detect critical defects on-site, UPM601-C is an essential tool for ensuring the reliability and longevity of transformers, switchgear, circuit breakers and power cables.

It features 4 or 8 UHF channels with frequency range from 300 to 2000 MHz, transient over-voltage protection, and 360 Points/Cycle sampling rate, making it highly effective for online PD testing and condition monitoring. It autonomously collects and stores data from multiple sensors, supporting high-voltage (HV) commissioning for both new and retrofit applications. To ensure optimal sensitivity, Rugged Monitoring offers customized sensor design and calibration services that are rigorously tested to meet industry standards.

Housed in a durable polycarbonate resin travel case, the UPM601-C is compact and easy to install, requiring only an external mains supply for operation. Its integration with Rugged Monitoring's RM EYE Enterprise APM Suite allows seamless data transmission, detailed analytics, and AI-driven insights. The system efficiently processes thousands of pulses per second, generating accurate Phase Resolved Partial Discharge (PRPD) graphs to help identify PD types in high-voltage assets.

With advanced noise suppression, onboard amplification, and a robust design built for challenging environments, the UPM601-C ensures precise PD measurements even in high-interference conditions. Paired with RM EYE's intuitive dashboards, customizable alarms, and predictive analytics, it empowers asset managers with the tools to enhance operational efficiency and extend equipment lifespan.

» Features

- Real-time fault Detection & Analysis
- Transient Over-Voltage Protection
- Software-configurable band-pass Filters
- Autonomous Data Collection & Storage
- Multi-Channel High-Precision Monitoring
- Seamless Integration with Third-Party Systems

» Benefits

- Enhanced Asset Reliability
- Reduced Downtime & Maintenance Costs
- Highly Accurate & Reliable PD Analysis
- Extended Equipment Lifespan
- Portable & Easy to Deploy
- Improved ROI

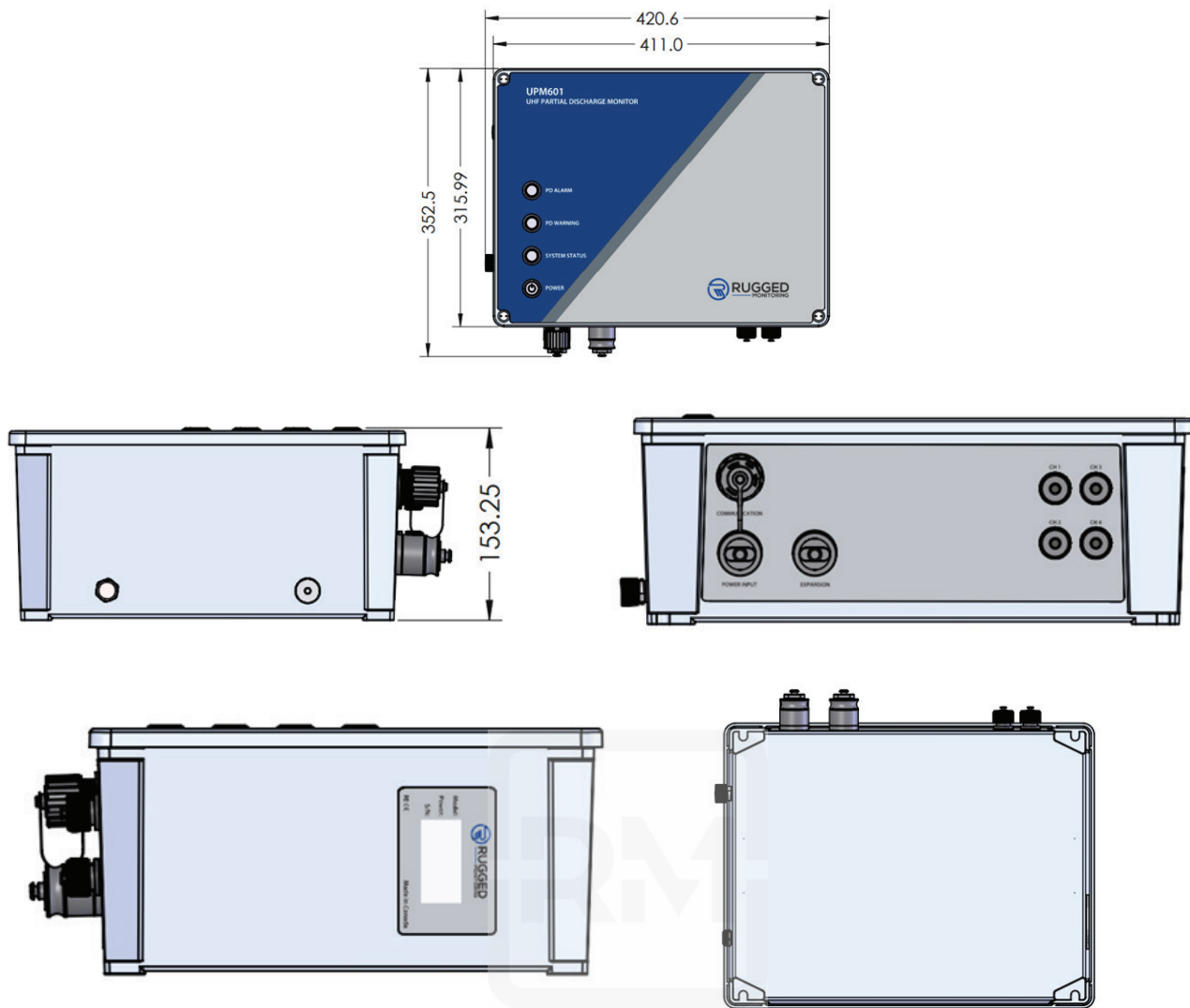
» Applications

- Continuous online PD monitoring.
- Offline PD measurements during high-voltage (HV) AC testing.
- Multi-point PD monitoring
- Power Transformers
- Switchgear- GIS and MV Panel
- GIS-Circuit Breaker
- Power Cables

» Technical Specifications

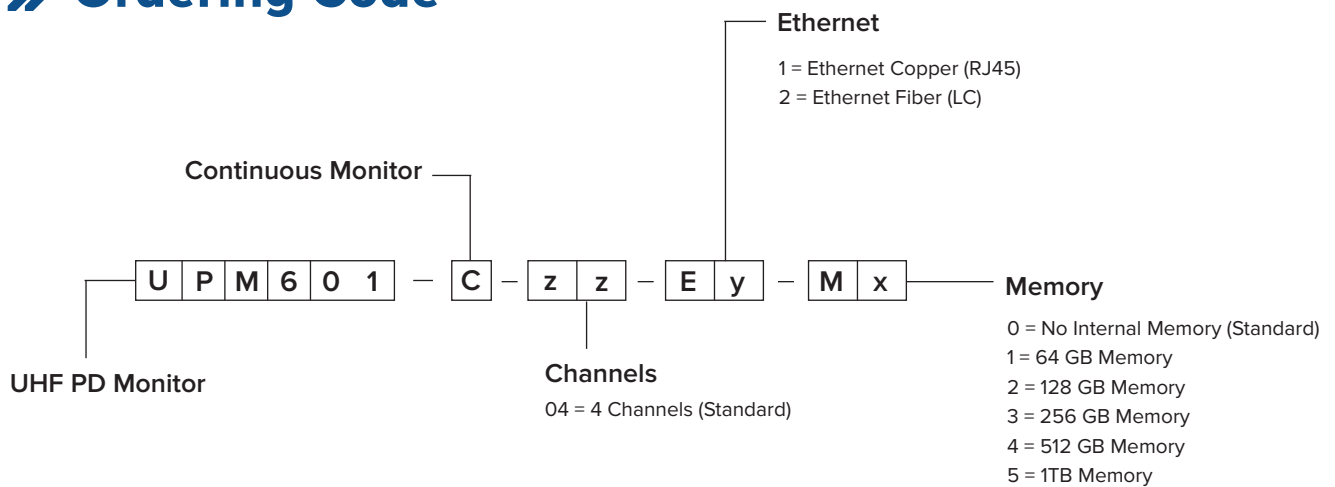
Sampling Rate	UHF : 360 Points/Cycle
UHF Frequency Range	300MHz - 2000MHz
No. of Channels	4 No's or 8 No's Option available
Sensitivity	-10dBm to -75dBm
Noise Elimination	User selectable 4 UHF Band Pass Filters. 1. 440-575 MHz 2. 300-575 MHz 3. 1100-2000 MHz 4. 300-1100 MHz
Communication Protocols	Ethernet Copper-RJ45. Proprietary TCP/IP Modbus, MQTT, IEC61850
Power Rating	50W
IP Rating	IP65
Synchronization	1. Internal Raw Power Supply 2. External with Rogowski Coil, Electrical Field Sensor 3. 110 V VT Signal
Compatible Sensors	USENS-V, USENS-T, USENS-BT, USENS-B USENS-C, USENS-G, USENS-W
Ambient Temperature	-30°C to +60°C
Storage Temperature	-40°C to +85°C
Dimensions	420.6 mm (L) x 352.5 mm (W) x 153.25 mm (H)
Software	Windows based software (PD Live - Default) or Enterprise Level (RMEYE)
Asset Types Monitored	Transformers
	Switchgear GIS and MV Panel
	Power Cables, GIS-Circuit Breaker

» Product Drawing



Note: All dimensions are in millimeters (mm)

» Ordering Code



CERTIFICATIONS



ISO 9001



ISO 14001



OHSAS 18001



Lloyd's Register



Atex Certification



NIST Certification

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