

PDA-200™

Partial Discharge Analyzer Unit

The PDA-200 is a high speed, multi-channel data acquisition unit used for analyzing very high frequency signals from continuous partial discharge measurements. When combined with the ZOOM® software suite, the entire system is an effective tool for observing partial discharge phenomena in large rotating machines.

General Specifications

PD Inputs

- Number of Inputs 6
- Input Impedance 10 kΩ
- Recommended Coupler Type Epoxy Mica 80 pF

Acquisition Specifications

- Line Frequency 50 to 60 Hz
- Voltage Range ±2.5 mV to ±10 V
Max ± 200 V (Spike < 200 μsec)
- Dynamic Range 70 dB
- Frequency Range
 - Band 1 150 kHz to 1.04 MHz
 - Band 2 1.04 MHz to 3.15 MHz
 - Band 3 3.15 MHz to 7.38 MHz
 - Band 4 7.38 MHz to 16.83 MHz
 - Band 5 16.83 MHz to 33.16 MHz
 - Band 6 33.16 MHz to 66.83 MHz
 - Band 7 66.83 MHz to 133.2 MHz
 - Band 8 133.2 MHz to 266.8 MHz
 - Overall 150 kHz to 266.8 MHz

Measurement Types with ZOOM

- Partial Discharge Detection Scatter Plots and Trending
- Fault Matching Diagnostic Pattern Categorization
- EMI Detection Continuous

Status Indicators and Outputs

- SYSTEM OK
 - Indicator Green/Orange LED
 - Relay Driver Bipolar FET*
(±30 V max. / 25 mA max.)
- CHANNEL OK
 - Indicator Green/Orange LED
 - Relay Driver Bipolar FET*
(±30 V max. / 25 mA max.)

Communication

- Ethernet
 - Protocol TCP/IP
 - Speed 100/1000 Base-T

Power Requirements

- Voltage 24 Vdc ±15%
- Consumption 35 W

Connection

- Power Input 3-Pos. Removable Terminal Block
- Ethernet RJ-45
- PD Inputs SMA Connector (Female)
- USB Port Type A, Female
- Relay Drivers 5-Pos. Removable Terminal Block

Environment

- Temperature Range
 - Operation 0 to 60°C [32 to 140°F]
 - Storage -20 to 80°C [-4 to 176°F]
- Humidity Up to 95%, Non-Condensing
- Protection Rating IP20

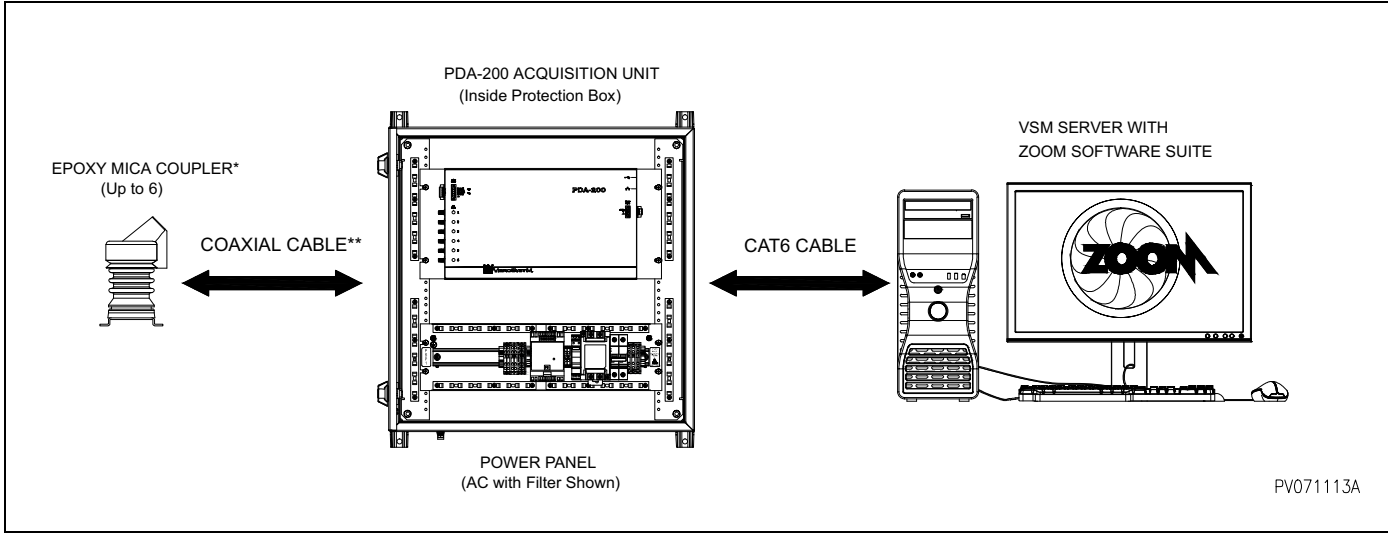
Physical Characteristics

- Casing 5U High, 19" Rack-Mount, NEMA 1
- Material Steel, Zinc-plated

*FET: Field Effect Transistor



Complete System Overview



*Coupler positioning is in accordance with commonly accepted installation practices.

**For maximum system performance, the protection box must be installed within 10 m [33 ft] of the couplers.

Optional Power Panels

- AC with filter to 24 Vdc, 4 A (100-240 Vac, 50-60 Hz);
- Universal to 24 Vdc, 4A (100-240 Vac, 50-60 Hz, 105-250 Vdc).

Dimensions

