



WHAT CAN THE SEEKER DO FOR YOU?

INVESTIGATE

• Find PQ complaint root causes

- Measure voltage quality and load current characteristics
- Verify regulatory compliance
- Distributed generation testing and troubleshooting

OBSERVE

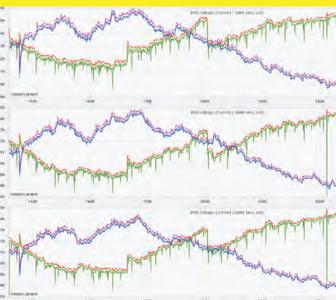
Gain distribution situational awareness

- Track and tune CVR and volt/VAR systems
- Receive instant outage notifications
- Monitor end of line voltage

CONTROL

- Control distributed generation
- Enforce minimum positive power
- Monitor DER distortion and real/reactive power; disconnect based on threshold exceedances
- Implement custom SCADA control schemes using the Seeker's DNP interface, PQ measurements, and digital I/O







SEEKER

Voltage Input-

GPS Antenna



INPUTS AC Voltage

0 to 600 V RMS continuous per phase

AC Current Sample Rate 0 to 5000 A RMS 250 kHz voltage and current (4166 samples/ cycle)

CHANNELS Voltage

4 channels Current 4 channels

QUANTITIES RMS Current PER CYCLE

Volts MEASURED RMS Voltage Amps Real Power Watts VAs **Apparent Power** VARs Reactive Power Phase Angle Degrees Power Factor Watts/VA Displacement PF cos (phase angle)

Power Usage

0.33% of full scale **ACCURACY** Voltage 1.0% of full scale w/o Current probe 1.0% of full scale w/o

probe

kWh, kVARh, kVAh

Phase Angle

1.0° w/o probe Power Factor ±0.02 w/o probe Displacement PF ±0.02 w/o probe

POWER FAIL **OPERATION**

Super capacitor ride through power for notifications.

HARMONICS Voltage

to the 51st Current to the 51st

Measures

SAFETY Designed to IEC 61010-1, 600 V CAT III

SYNCHRONIZATION

User-configurable SNTP time synchronization through Ethernet or cell modem. High resolution timestamping with optional GPS.

Magnitude, phase, THD



COMMUNICATIONS

Standard Options

Interval Graphs

Significant Change

Waveform Capture

Flicker Settings

Wi-Fi. Bluetooth LTE Cell Modem, Ethernet

INFORMATION **STORAGE**

Data Storage

144 MB onboard storage. unlimited cloud storage

RECORD SETTINGS

1 cycle to 4 hour interval, user selected, stop-whenfull or wrap-around memory modes 1 V to 8 V in 1 V steps User-defined, or conform to IEEE 1453/

IEC 61000-4-15, and IEEE Std. 141

Voltage and current threshold, periodic capture, waveshape, event cross

2 Independent Relays

triggers

RELAY OUTPUTS

Output Type Dry Contact Form C (1 normally open, 1 normally closed)

4 amps

Number of Outputs Max Switching Voltage Max Switching Current

DIGITAL INPUTS

Input Type High Impedance Number of Inputs Min Sense Voltage 60V Nominal Sense Voltage 120V 150V Max Sense Voltage

POWER SUPPLY REQUIREMENTS

60-600 VAC Channel 1 to Voltage Common (47-63 Hz) 5 Watts max, 15 VA max at Consumption

ENVIRONMENTAL

PHYSICAL

DIMENSIONS

-20° F to +135° F Operating Temp Humidity Less than or equal to 85% 60 Hz to 2 kHz, Shock acceleration 25 G 10 Hz to 60 Hz, amplitude Vibration

Max Altitude

Size 5.06" L x 3.00" W x 1.81" H Weight less than 1 lb NEMA 4X Case

above 2.0 km

1.8 mm

2.0 km (6560 ft), derated

CT Input Ethernet Relay I/O

5.06"

LTE Antenna



Cloud-based Recordina:

The Seeker continuously streams PQ data to cloud-based PQ Canvass. Use a web browser to analyze the latest data instantly, without downloading.

Control Options:

Use the internal dual Form C relays to control distributed generation or other equipment through SCADA or automatically based on measured values. Two isolated digital inputs provide status or other equipment monitoring.

Communication Options:

The Seeker includes Wi-Fi, Bluetooth, LTE cell modem, and Ethernet communication options.

SCADA Compatibility:

A full DNP interface over Wi-Fi, cell or Ethernet exposes all PQ measurements and I/O control functions.

GPS Timestamping:

The optional integrated GPS receiver provides sample level timestamp accuracy.

Easy To Install:

The Seeker's small weatherproof enclosure contains the AC power supply, wireless communications, relays, and PQ monitor. No external enclosure, power supply, or communications device is needed.

24/7 Technical Support

Call Us Anytime

Power Monitors, Inc. is an industry-leading product design and manufacturing firm based in Mt. Crawford, Virginia. Founded in 1987, PMI set out with the goal to solve power quality problems by listening to our customers and working with them to design and manufacture products to suit their needs. Total customer satisfaction is our goal: we offer 24/7 technical support and extensive educational material.

pqcanvass

Cloud-based PQ Monitoring

- Use a web browser to see the state of your distribution system at a glance in a map-based display
- · Access stripcharts, histograms, and daily profile graphs
- Compare voltage, current and power from different locations and find correlations across a distribution system
- Phone and tablet friendly

Live Data and Event Notifications

- Programmable email and text message alerts for threshold exceedences, outages, or other events
- Get real-time readings and waveforms
- View up-to-the-minute data anywhere with a web browser

Applications

- Browser based PQ data analysis
- Distribution situational awareness
- Voltage regulation
- VAR flow analysis
- End-of-Line monitoring

