

## ENERGY AND POWER QUALITY DATA LOGGER

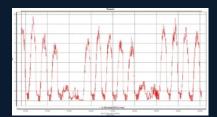
TRUSTWORTHY POWER LOGGING



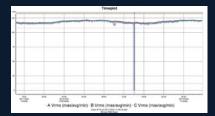




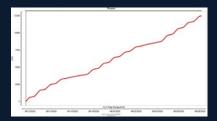
## DRAN-VIEW XP SOFTWARE



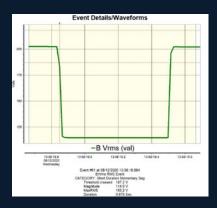
## **Load Trends**



## **Voltage Trends**



## **Energy Trends**



**View PQ Events** 

# MAVOWATT 210 ANALYSER

# LOW COST PORTABLE ENERGY/POWER LOGGER & PQ DETECTOR

- Power/energy logger & PQ disturbance/event detector
- 3 voltage channels Direct measurements up to 600 Vrms, CAT III
- 4 current channels MAVOWATT 210 Rogowski, hinged and 0.333mv CT's from other sources (UL listed)
- Measures: V, I, W (P), VA (S), VAR (Q), PF, Demand, Energy & much more
- PQ disturbance detector Detect and records trends of RMS sags/dips, swells, current changes – IEC 61000-4-30 1/2 cycle methods
- Harmonic measurements & recording Vthd, Ithd. Measurements using the methods of IEEE 519-2014/IEC 61000-4-7
- Web browser interface for real time meters, setup and data transfer
- Free, unlicensed Dran-View XP software for analysis & reporting
- 7 hours battery runtime Best in class
- Automatic wiring verification LED's indicate wiring errors
- Ethernet, USB communications
- Modbus, BACnet
- UL and CE Compliant
- 3 Years Warranty

## — 3 VOLTAGE CHANNELS

## **COLOR CONNECTION LED'S**

- Easily identify wiring errors
- Color coded to your wiring
- Correct for wiring errors



4 CURRENT CHANNELS







SMALL AND COMPACT 3 VOLTAGE, 4 CURRENT CHANNELS

### ETHERNET & USB

## **APPLICATIONS**

## **MAVOWATT 210** IS USER FRIENDLY IN VIRTUALLY ANY LOCAL OR REMOTE POWER MONITORING APPLICATION, INCLUDING:

- Energy audits according to DIN EN 16247-1
- Demand side management
- Basic PQ surveys
- Check metering
- Sub metering
- Tenant metering
- Alternative energy production
- Energy cost allocation
- Load profiling
- Power factor studies
- Residential applications including energy using and PQ detection
- Automatic (or manual) internet updates

## INDUSTRIES INCLUDE, BUT ARE NOT LIMITED TO:

- Utility
- Commercial
- Industrial
- Manufacturing
- Electrical contractors
- Property management & real estate
- Petrochemical & Chemical
- Hospital & healthcare
- Oil exploration

- Sampling Frequency: 32 ksps (recorded and real-time meters), 128 samples per cycle (periodic waveform snapshots)
- Sag/dip, swell trigger resolution: 1 cycle (uses IEC 61000-4-30 Class S methods)
- Panel indicators: RGB LEDs for monitoring on/off, energy flow, PQ event indication, battery charging/status, wiring status
- Storage Capacity: 8 GB
- UL, CE

## VOLTAGE (3)

- Range: 90 to 600 Vrms CAT III
- Accuracy: 90 Vrms to  $600 \text{ Vrms} = \pm 0.1 \%$ , <90 Vrms = 0.5 %
- Connections: 4 safety banana voltage inputs 3 phase voltage and 1 neutral/reference

## CURRENT (4)

- Input: 0.333 VRMS full scale, Connections: BNC
- Accuracy: ±0.1 % + probe

- Range: 50 Hz = 45 Hz to 55 Hz, 60 Hz = 55 Hz to 65 Hz
- Accuracy: 50/60 Hz: ±0.001 Hz

## POWER QUALITY

- Sag/dip, swell trigger threshold resolution: 1 cycle
- Vthd:  $\pm 5$  % for V  $\geq$  10 % Vnom
- Ithd:  $\pm 5\%$  for I  $\geq 10\%$  Inom + probe error

## **ENERGY PARAMETERS (Probe Dependent)**

- (True/Active) Energy (P): 0.1 %
- Reactive Energy (Q): 0.1 %
- Apparent Energy (S): 0.1 %
- Fundamental Active Energy(P): 0.2 %
- Fundamental Reactive Energy(Q): 0.2 %
- Fundamental Apparent Energy (S): 0.2 %
- Demand: 0.2 %

## POWER PARAMETERS (Probe Dependent)

- (True/Active) Power (P): 0.2 %
- Reactive Power (Q): 0.2 %
- Apparent Power (S): 0.2 %
- Fundamental Active Power(P): 0.2 %
- Fundamental Reactive Power (Q): 0.2 %
- Fundamental Apparent Power (S): 0.2 %
- Power Factor (PF): ±0.001 %

### INSTRUMENT POWER

### LINE POWER SUPPLY

- Range: 90 to 264 VAC, 47 to 63 Hz, Consumption: 15 W max
- Line cords/plugs: Localized EU

### **INTERNAL BATTERY**

- Rechargeable lithium Ion battery pack (UL recognized)
- Run time: 7 hours (typical), Charge time: 15 hours (typical)

## COMMUNICATION INTERFACES

- Ethernet: 10
- USB: 2.0
- Protocols: Modbus, Bacnet

## **ENCLOSURE & MECHANICAL**

### **MECHANICAL**

- Weight: 1.4 lb. (0.64 kg)
- Dimensions: 3.5" W x 2.2" H x 7.4" L (6.4 cm x 8.9 cm x 18.8 cm)
- IP50 (vertical position)

### **ENVIRONMENTAL**

- Storage Temperature: 5° to 131°F (-15° to +55°C)
- Operating Temperature: 32° to 113°F (0° to +45°C)
- Humidity: 5 % to 95 % non-condensing

## ORDERING INFORMATION

## Article number: M840B

- Accurate, 3-phase, bidirectional power and energy logger MAVOWATT 210 to identify and record common PQ issues including softcase
- Dran-View XP software
- Voltage leads as well as (3) Rogowski current transformers, 50-500 A, probe lenght 40 cm



## **GMC** INSTRUMENTS









R04-RevA

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