MAVOWATT 20 – Energy Platform

Energy and Power Analyzer
MAVOWATT 20 – The new Energy and Power Analyzer
Applications

• **Electrical energy reduction & cost savings programs**
  - How much energy is used? Where and when used? Daily, Weekly & Monthly KW/KWh
  - Determine energy costs
  - Determine electrical Carbon Footprint

• **Alternative energy such as wind and solar**
  - Monitor individual generators (panels, windmills) or total generation.
  - DC monitoring for solar applications.
  - Direction of energy flow. Producing or consuming electricity
Applications

- General power studies
  - V, I, W, VA, VAR, PF, Demand, Energy + more

- NEC 220.87 demand surveys

- Load testing, commissioning

- Harmonic studies

- Simple PQ studies
MAVOWATT 20 - Energy Platform

Key Features

- **Powerful, yet very affordable power monitoring!**
  - Better features and easier to use than competition but at a similar price
- **Lightweight portable instrument** – 3.8lb (1.8Kg)
- **Colorful user interface** – No PC software required
  - ¼ VGA color touch screen
- **Easy to read Energy & Demand reports**
- **Carbon Footprint Calculator**
- **EPRW software (no license) included**
  - DranView optional
  - New DranView energy audit report for use with complete MAVOWATT family
MAVOWATT 20 - Energy Platform

Key Features

- **Large Compact Flash memory** for long duration surveys
- **Automatic setup** – Easy beginning
  - No operational training required
  - Easy to use manual setups also available
- **High resolution**
  - 256 samples per cycle. 8 channels, 4V, 4I. Cycle by cycle accumulation with no gaps in measurements!
- **High accuracy**
  - 0.1% V&I (plus transducers)
- **Packages include all that you need!**
  - EP1, voltage cables, CT’s, CF Card, Case, EPRW software
- **Additional accessories available**
  - DranFlex XL CT’s, Clamp CT’s, Enclosures + more
  - Compatible with MAVOWATT 30/40/70
Overview

Single, Common Reference Inputs
D Channel Differential
600VAC, DC L-N, N-G

Rugged Plastic Enclosure
Protective Rubber Boot
¼ VGA, Color Touch Screen
3.8 lb/1.8KG

Single CF slot
Power Button
Battery Charge Indicator
Feature Set

- Measured, Trended & Triggered Parameters
  - Very similar to MAVOWATT 30
  - Cycle by cycle V & I. 256 samples/cycle
  - CAT III 600V

- Power – Trend min, max, ave
  - V, I, W, PF. DPF, TPF

- Distortion – Trend min, max, ave
  - Vthd, Ithd. VTID, ITID, TIF, TDF, K Factor

- Demand
  - Active, Apparent, Reactive Power Demand

- Energy
  - KWh, KVAh, KVARh, Forward & Reverse Energy
Feature Set

- Measured, Trended & Triggered Parameters
  - Journal trending and triggers work as MAVOWATT 30
    - 200ms resolution on V, I, W, VA, VAR, THD, Harmonics and other parameters
  - Voltage and Current Power Quality is available but limited
    - Sag/Dip & Swell only
    - Cycle by cycle detection
    - No waveforms are available. Text summary of events only
    - Thresholds are fixed to +/- 10% of nominal automatically detected or manually entered.
    - Customer cannot change PQ limits. Can turn PQ triggers on and off
  - Flicker is not available
Demand Report

Easy to read reports summarize your survey

- **Present Demand**
  - Present demand of the circuit

- **Predicted Demand**

- **Demand Interval Status**
  - Shows time into the demand interval such as 11 minutes into a 15 minute interval

- **Daily, Weekly & Monthly Peak Demand time/date**
  - Customers can be billed on peak demand
  - This report shows the date and time of the peak demand for the current day, week and month

- **Real Time V, I, W meter**
  - Present metered values
  - Same as meter screen
Energy Report

- Billing cycle status
- Daily & Monthly Energy
  - Easily know how much energy is used.
- Carbon Footprint calculator
  - Carbon Footprint represents the Carbon Dioxide CO2 produced generating electricity consumed.
  - Various generation methods have different carbon footprints, i.e. coal, gas, oil, nuclear, hydro, wind, solar generation have a different impact on the environment. The lower the number, the less CO2 produced.
  - Usually represented in pounds/KWh or Kg of CO2 per KWh consumed
  - Can be an average representing all types of generation used by the utility.
  - Example: Pacific Gas & Electric (California, USA) publishes a Carbon Footprint of 0.524 pounds CO2 /KWh of energy used.
- Real Time V, I, W meter
  - Present metered values
  - Same as meter screen
Setups

- **Automatic setups**
  - Automatic detection of Circuit Type
  - Factory default settings
  - User can select probe type

- **Manual Setups – Wizard**
  - Customize recording and reporting parameters
    - Journal triggers – High/Low limits
    - Journal intervals – Demand interval, power & harmonics intervals
    - Demand unit – W, VA, VAR
    - Carbon Footprint – Pound or Kg, multiplier
Setups

• **Compact Flash Data Storage**
  - 4GB (min) Compact Flash (CF) provided
  - Data and setups stored on CF card
  - Maximum file size is 256MB. Automatically starts a new file if fills during monitoring
  - CF Card is used to load data into the PC and for EPRW, DranView
    - Standard CF card reader used. USB, built into laptop, etc.

• **MAVOWATT 20 has the largest data storage of any manufacturer**
EPRW PC Software

- **Energy Platform Report Writer Software**
  - Included in package at no additional cost
  - Unlicensed – No HASP
  - Automatically produces an energy audit report in an RTF format
    - User selects time range of report
    - Includes Energy expense summary
    - Time Of Use Billing, Trended data
  - Export data to .CSV files for use in other software such as Excel
DranView PC Software

- Optionally available for use with MAVOWATT 20
- New driver to read MAVOWATT 20 data
- New Energy Audit report added to the DV report writer
  - Energy Audit report is similar to EPRW reporting features
  - Demand & Time Of Use reports
## MAVOWATT 20 - Energy Platform

### Differentiation MAVOWATT Family

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<th>Application/Feature</th>
<th>MAVOWATT 20</th>
<th>MAVOWATT 30</th>
<th>MAVOWATT 40</th>
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Thank you for your attention!

If you have any further questions or suggestions, please contact:

Klaus-Peter Richter  
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