Energy Tracking
Web Enabled Meter (WEMM)

Email: support@energytracking.com

General:

The WEMM is a revenue grade revolutionary low cost, highly accurate electric energy and power measurement meter with enhanced embedded network and load control capability. It has been designed for broad International use and provides data using open standards such as XML. It's on board web server allows the end user to view data with any web browser such as MS Internet Explorer ™. It can be set to periodically send reports via emails and ftp files. The supporting Energy@DeskTop application can be used for billing, charting, load profile analysis, aggregation, etc. The combination of the WEMM and Energy@DeskTop allows any end user to optimally view, track and control their energy usage.

Power Supply:

- External power supply. Input: 100 to 240VAC. Output 12VDC.
- Supply Current: 300mA (typical)

Back up power supply:

- Rechargeable Lithium Ion battery. Charging circuit built-in.

Accuracy:

+/-0.2% at unity power factor.
+/-0.5% at 0.5 power factor.

Input Signal Range:

- Max Voltage Input per phase: 277 rms AC (Phase to neutral)
- AC Voltage (VA, VB, VC): 0 to 277 (rms)
- AC Current (IA, IB, IC): 0 to 5A.

Frequency:

- 50 / 60 Hz.

Energy Measurement (4-Quadrant):

- 1 Element, 2 Wire, Single Phase.
- 1 Element, 3 Wire, Single Phase.
- 2 Element, 3 Wire, Three Phase Delta.
- 2 Element, 4 Wire, Three Phase Delta.
- 2 Element, 4 Wire, Three Phase Wye.
- 3 Element, 4 Wire, Three Phase Wye.

Interface Connectors:

- DC Supply Jack — Concentric 2.5 mm
- RJ 45 Network Cable
- Voltage Inputs — Phase A, B, C.
- Current Inputs — Phase A, B, C
- Neutral

Network:

- Plug-n-Play: DHCP enabled (default)
- User can set to Fixed IP address.
- Ethernet 10/100 BaseT

Applications Built In:

• DHCP Client	Acquires IP Address
• DNS Client	
• SNTP	Real time clock
• Day Time Client	Backup Real time clock
• Time Zone Support	
• FTP Server	Firmware Updates
• FTP Client	Report Data via FTP.
• Email Client	Report Data via Email.
• Web Server	Password protected

Standard Ports Utilized:

Web Server:	Port 80
FTP Server:	Port 21
Email SMTP	Port 25
SNTP (time synchronization):	Port 123
Day Time Server (alternate time synch):	Port 13
Debug Output:	Port 12345

User Selectable Features:

• Program Load Profile interval	15,30,60 minutes.
• Send load profile email immediately upon end of interval.	
• Send alarm email on power failure / return.	
• Send alarm email when threshold exceeded.	
• Time of Use Tiers.	
• Demand Reset Date.	
• Schedule weekly or daily email Reports.	
• Set Demand Threshold Alarm.	
• Set Load Control Thresholds.	2 Channels.
• CT / PT Ratios.	
• Meter ID / Serial Number	(Alpha Numeric)

Accessible via Web Server:

- Setup of Email, DNS, FTP, Time Zone, DHCP or Fixed IP.
- Load Profile Data – kWh/kVArh Delivered and Received.
- Instantaneous Voltage, Current, Power Factor by Phase.
- Watt Hours, VARH, VA
- Energy Imported, Exported, Sum, Net.
- Energy Consumption and Demand with Time Stamp.
- Previous Month's Consumption and Demand Data.
- Disengage / Engage Load Control.

Energy Management System Support:

- Isolated kWh pulse output.
- Isolated kVarh pulse output.
- Two Isolated outputs for load control based on user defined thresholds.

Software Supporting Applications:

Energy@DeskTop Application. (optional)

Environmental:

- Operating Temperature: -25C to +75 deg C.
  (Consult Factory for extended temperature range.)
- Storage Temperature: - 40C to +85 deg C.
- Humidity: 5% to 95%
- Altitude: 12,000 ft (3657.60 meters)

Display LED's:

- Yellow – Provides indication of Ethernet Link.
- Green – Provides indication of Ethernet Activity.

Standards:

The embedded Network module meets the following electromagnetic emission standards:

EN55022: 1988
EN55024: 1988
VCCI
AS 3548

Safety Standards:

The embedded network module meets the following electromagnetic emission standards:

- UL 60950
- CSA 22.2 No. 60950
- EN60950

Design:

Panel / Wall Mount.

Dimensions:

- Length 8.0”
- Width 7.0”
- Height 3.0”