**DESCRIPTION**

The VerifEye™ EMH+ Integrated Meter and Hub combines an onboard revenue-grade power meter, a Leviton Data Acquisition HUB and web server in a flexible all-in-one package. This simple and effective energy solution can be used to meet energy codes and mandates and is ideal for new construction and commercial buildings. Installation is simple as the device draws power from the connected voltage sense lines - no external power supply required!

The VerifEye EMH+ uses an Ethernet (LAN) connection allowing end users to pull data via HTTP, XML, FTP or any custom protocol by utilizing the EMH+ Module to build their own applications.

The VerifEye EMH+ monitors three phase loads and can be easily expanded to support water, gas and steam monitoring applications for a comprehensive snapshot of a facility’s total energy usage.

The VerifEye EMH+ reduces installation time and costs and eliminates the need for an external power supply. CT amperages are field configurable. No additional software is required.

**APPLICATIONS**

Use VerifEye EMH+ in commercial, institutional, industrial and government applications for:
- Load profiling and benchmarking
- AMR/BAS/EMS integration
- Use aggregation
- Tenant cost allocation
- Measurement and verification
- Energy conservation and cost reduction
- Green building initiatives and Government mandates
PRODUCT DATA

METER FEATURES
- Data Collection
- Logs and collects data on user selected intervals
- Non-volatile memory stores data until the next scheduled upload or manual download
- Compatible with VerifEye BMO 3.0* allowing users to quickly access energy consumption information from a web-based platform
- Tracks real-time energy usage for demand response programs
- Meter data can be transferred to energy dashboards, kiosks and software applications
- Expandable via ModBus RTU and ModBus TCP
- Supports BACNet and other protocols on one device
- Seamlessly integrates with BMS and BAS systems
- Five year warranty
  *VerifEye BMO 3.0 Base Module software is available at no cost with the purchase of a VerifEye data acquisition hub

LCD TOUCH SCREEN FEATURES
- Similar Smartphone layout
- System set up from touch screen
- Set communication modules from the full color touch screen

MEASURED PARAMETERS
- Meter Totals
- kWh net, total delivered, received
- kVArh delivered, received
- kW instantaneous, block demand
- kVAR, kVA instantaneous
- Voltage L-L, L-N
- Current
- Power factor
- Frequency
- Per Phase
- Voltage L-L, L-N
- Current
- Power
- Power factor

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WIRING DIAGRAMS

208/480VAC, 3 PHASE, 3 WIRE DELTA (WITHOUT NEUTRAL) INSTALLATION

Voltage
CT - A  CT - B  CT - C
A  B  C  N

Current
Black  White  Black  White  Black  White

208/480VAC, 3 PHASE, 4 WIRE WYE (WITH NEUTRAL) INSTALLATION

Voltage
CT - A  CT - B  CT - C
A  B  C  N

Current
Black  White  Black  White  Black  White

240VAC, SINGLE PHASE, 2 WIRE (WITH NEUTRAL) INSTALLATION

Voltage
CT - A  CT - B  CT - C
A  B  C  N

Current
Black  White  Black  White  Black  White

Ground
## VeriFeye™ EMH+ Integrated Meter & Hub

### Specifications

| **DEVICE** | ARM9 embedded CPU, ARM7 meter board |
| **Processor** | Linux 2.6 |
| **Operating System** | 32 MB RAM |
| **Memory** | 16 MB NOR Flash |
| **Flash ROM** | 1 to 60 minutes, user selectable (default 15 minutes) |
| **Interval Recording** | Ethernet, ModBus TX/RX, power, alarm |
| **LEDs** | TFT touch screen |
| **Console** | RJ45 Ethernet and RS485 port are isolated |
| **Isolation** | Supports up to 32 external devices (expandable) |
| **Serial Port** |

### INPUTS

| **Input Voltage** | 208-480VAC three phase, 50/60 Hz, 120,240,277VAC single phase, 50/60 Hz |
| **Input Current** | 33.3V and 1V (current transformer) |
| **Power Consumption** | 8W Max |
| **Current Transformers (CTs)** | 100A, 200A, 300A, 400A, 600A, 800A, 1,600A, 3,000A, 5,000A |

### OUTPUTS

| **Serial Port** | RS-485 ModBus |

### ACCURACY

| **Meter Accuracy** | Meets or exceeds ANSI C12.1 (class 1% meter), from 2% to 100% of full scale |

### COMMUNICATION

| **Protocols** | ModBus/RTU, ModBus/TCP, TCP/IP, PPP, HTTP/HTML, FTP, NTP, XML, SNMP-Trap, optional BacNet/IP |
| **LAN** | RJ45 10/100 Ethernet, full half duplex, auto polarity |
| **Baud Rate** | 9600, 19200, 38400, 57600, 115200 |

### ENVIRONMENT

| **North America** | -22 to 122°F (-30 to 50°C), 95% RH, non-condensing |

### SAFETY

| **UL** | UL 61010-1 listed |
| **CE** | EC 61010-1 |

### EMC

| **FCC** | CFR 47 Part 15, Class A |
| **CE** | EN 61000, EN 61326 |

### ORDERING INFORMATION

| **CAT. NO.** | **DESCRIPTION** |
| **ABB814-153** | EMH+ Data Acquisition Server with 3 Phase Meter, includes 100A split core CTs. |
| **ABB814-253** | EMH+ Data Acquisition Server with 3 Phase Meter, includes 200A split core CTs. |
| **ABB814-353** | EMH+ Data Acquisition Server with 3 Phase Meter, includes 300A split core CTs. |
| **ABB814-453** | EMH+ Data Acquisition Server with 3 Phase Meter, includes 400A split core CTs. |
| **ABB814-653** | EMH+ Data Acquisition Server with 3 Phase Meter, includes 600A split core CTs. |
| **ABB814-853** | EMH+ Data Acquisition Server with 3 Phase Meter, includes 800A split core CTs. |
| **ABB814-163** | EMH+ Data Acquisition Server with 3 Phase Meter, includes 1,600A split core CTs. |
| **ABB814-303** | EMH+ Data Acquisition Server with 3 Phase Meter, includes 3,000A split core CTs. |
| **ABB814-503** | EMH+ Data Acquisition Server with 3 Phase Meter, includes 5,000A split core CTs. |

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