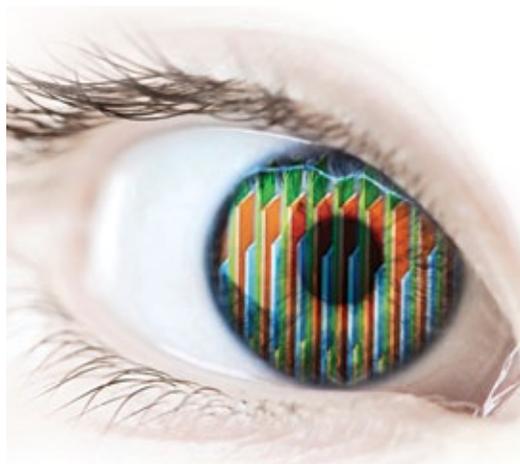


# verifEye™

Submetering Solutions



Reward of Information (ROI)

## SMARTer Metering. SMARTer Control. REAL Savings.

### The Benefits of Submetering

Leviton redefines ROI as Reward of Information with VerifEye™ Submetering Solutions. VerifEye delivers a comprehensive line of leading-edge submeters, communication products, and software solutions as the key building blocks to help you better manage costs and conserve energy.

Develop your strategic energy management plan using revenue grade real-time energy usage information to measure, monitor, and manage operations to improve your bottom line. From tenant billing to energy measurement & verification (M&V) software solutions, VerifEye offers cost effective scalability and integration to provide you with the solution you need today and in the future.

For additional energy savings, combine VerifEye with Leviton lighting controls for a complete energy management solution from a single source.

#### VerifEye delivers accurate information for:

- Tenant billing/cost allocation
- Load profiling & benchmarking
- Measurement & verification (M&V)
- Energy conservation programs
- LEED projects
- Government mandates
- AMR/BMS/EMS integration



## Excellence Comes Standard

- Open architecture design provides easy integration with third party building management system (BMS) platforms
- UL g16 Listed for Energy Monitoring Equipment
- Installer friendly, reverse phase LED and power and load indicators provide installation diagnostics by visually confirming that the product is properly installed and functioning
- Leviton Series 1000, 2000, 3300, and 3500 meters are available in an indoor steel or outdoor NEMA 4X enclosure at the same low price
- Offering includes wide range of meters to meet the needs of any application and automated data collection solutions and energy reporting and analysis software to easily and intelligently manage energy consumption
- Confidently backed by a best in the industry 10 year warranty

## Leviton Metering Philosophy

### Consultative Approach

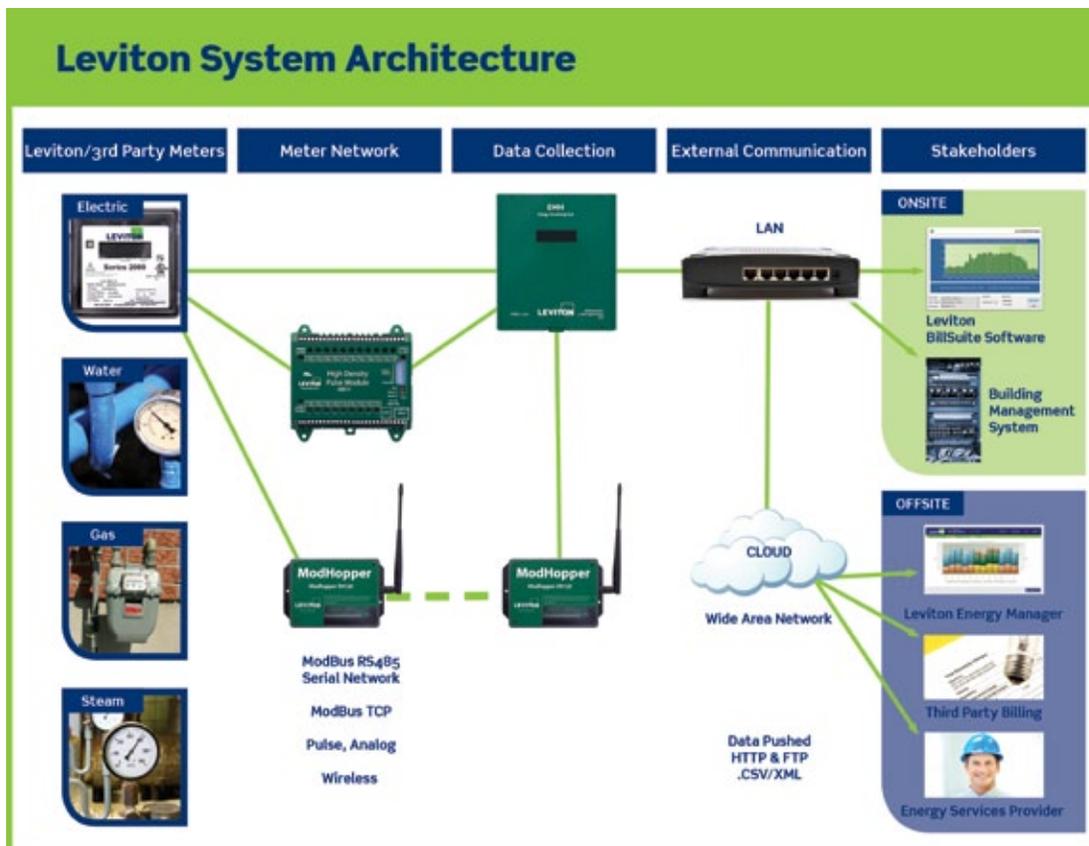
Find right match for each client - each project gets exactly the equipment needed

### Scalable System

Options for future upgrades and additions are available with Leviton's flexible solution—no need to purchase an entire new system

### Open Protocol

Ease of communication between multiple parties and platforms



## VerifEye Meters



MMU



Mini Meter Flush Mount



0.5% Mini Meter



Mini Meter Outdoor



Series 8000

	Residential		Residential/Commercial
Specifications	Mini Meter™ Kits	0.5% Mini Meter Kits	Series 8000 Multiple Point High Density Meter
	kWh Meter		kWh Meter
<b>Phase/Wiring</b>	1PH 3W	1PH 3W	1PH 2W 1PH 3W WYE 3PH 3W Delta 3PH 4W WYE
<b>Voltage Configurations</b>	120/208/240	120/208/240	120/208 120/240 240/416 277/480 480*
<b>Amperages</b>	100-200A 100, 200	200A	100-5000A 100, 200, 400, 800, 1600, 3000, 5000
<b>Data Output</b>	kWh	kWh	kWh Wh delivered and received, VARh delivered and received, VAh, Vrms, Irms
<b>Communications Protocol (Standard)</b>	Isolated Pulse Output	2-Way Mesh Network (902-928 MHz)	ModBus TCP ModBus RTU (RS-485) BACnet IP
<b>Current Transformers Options</b>	Split Core Solid Core	Solid Core	Split Core Solid Core
<b>Enclosure Options</b>	OEM Module <b>Indoor</b> Plastic Flush Mount NEMA 1 <b>Outdoor</b> NEMA 4X <b>MMU</b> NEMA 4X	<b>Indoor</b> Flush Mount <b>Indoor</b> Surface Mount	<b>Indoor</b> JIC Steel NEMA (MMU)
<b>Display Type</b>	LCD or Mechanical Counter	LCD	Local LCD, Scroll
<b>Accuracy</b>	C12.10 +/- 0.5% with paired CTs	C12.20 0.5% with paired CTs	C12.10 and C12.20 +/- 0.5%
<b>Multiple Meter Unit (MMU) Configurations</b>	Medium, 2-4 Meters Large, 5-8 Meters Extra-Large, 9-19 Meters	-	3PH: 8x3 1PH 3W: 12x2, 9x2, 6x2, 3x2 1PH: 24x1
<b>Data Storage</b>	Last Reading - Cumulative	Last Reading - Cumulative	Last Reading - Cumulative Data in 15 min Intervals

\* With potential transformer - consult factory for availability.



Commercial							
Series 1000 Single Phase Meter Kits		Series 2000 Three Phase Meter Kits		Series 3300 Multi-Function RS485 Meter Kits Series 3500 Multi-Function Ethernet Meter Kits			
kWh Meter with Optional Demand							
<b>Phase/Wiring</b>	1PH 2W	1PH 3W	3PH 4W WYE	1PH 3W WYE	3PH 3W Delta	3PH 4W WYE	3PH 4W High Leg Delta
<b>Voltage Configurations</b>	120	120/208	120/208	Universal Voltage (120-480V)			
	277	120/240 277/480	277/480	120/208 277/480	208 240 480	120/208 277/480	120/240
<b>Amperages</b>	100-800A 100, 200, 400, 800		100-1200A 100, 200, 400, 800, 1200		100-5000A 100, 200, 400, 800, 1600, 3000, 5000		
<b>Data Output</b>	kWh Optional kW (peak demand reset)		kWh Optional kW (peak demand reset)		kWh kW (peak demand reset) Meter total: kVAR, kVA, Power Factor & kW By Phase: Volts, Watts, Amps, Power Factor Interval Data		
<b>Communications Protocol (Standard)</b>	Isolated Pulse Output		Isolated Pulse Output		<b>Series 3300</b> Isolated Pulse Output Modbus RTU over RS-485 BACnet MS/TP		<b>Series 3500</b> Isolated Pulse Output Ethernet Modbus TCP/IP BACnet IP
<b>Current Transformers Options</b>	Split Core Solid Core		Split Core Solid Core		Split Core Solid Core		
<b>Enclosure Options</b>	<b>Indoor</b> JIC Steel NEMA 1 <b>Outdoor</b> NEMA 4X		<b>Indoor</b> JIC Steel NEMA 1 <b>Outdoor</b> NEMA 4X <b>MMU</b> JIC Steel NEMA 1		<b>Indoor</b> JIC Steel NEMA 1 <b>Outdoor</b> NEMA 4X		
<b>Display Type</b>	Local LCD		Local LCD		Local LCD, Scroll		
<b>Accuracy</b>	C12.10 and C12.20 +/- 0.5%		C12.10 and C12.20 +/- 0.5%		C12.10 and C12.20 +/- 0.5%		
<b>Multiple Meter Unit (MMU) Configurations</b>	-		Medium, 2-4 Meters Large, 5-8 Meters/ Extra-Large, 9-19 Meters		-		
<b>Data Storage</b>	Last Reading - Cumulative Peak Demand with Key Reset (optional)		Last Reading - Cumulative Peak Demand with Key Reset (optional)		Last Reading - Cumulative Peak Demand with Key Reset Data in 15 min Intervals		

## Mini Meter™

### EQUITABLE TENANT BILLING

Some multi-tenant residential properties include energy costs in rental fees and generally charge tenants for energy based on the square footage occupied. To be truly equitable, tenants should pay only for what they actually use. With Leviton Mini Meters, building managers can easily track and allocate energy usage costs fairly to multiple tenants, as well as recoup energy expenses from common-use areas (parking lots, hall lighting, etc.). Tenants benefit by paying only for the energy they use; and when they focus on conserving energy, they can see direct financial benefits from their efforts.

- kWh Meter
- 120V 1PH 2W and 120/208/240V 1PH 3W
- 100-200 Amps
- Pulse Output - standard feature
- Available in indoor flush mount or surface mount enclosure
- Available in NEMA 4X indoor/outdoor individual meter enclosures and Multiple Meter Units (MMUs) from 2 to 19 meters
- Models include built in tamper proof switch or built in wireless AMR and temperature sensing capabilities
- Revenue grade accuracy: 0.5% accuracy class
- Use with split core or solid core CTs
- Up to three sets of CTs per phase can be paralleled per meter with no multipliers
- Components of Mini Meter Kits are UL/cUL Listed Energy Usage Monitor per CCN FTRZ



Indoor  
Flush Mount  
Mini Meter



Indoor Surface Mount  
Mini Meter



Outdoor  
Mini Meter

## MINI METER KITS

Note: Kits include meter, specified enclosure and required current transformers

### Mini Meter Kits - Indoor Flush Mount Enclosure

VOLTAGE	AMPS	CTS INCLUDED	CAT. NO.
120/208V 3W or 120/240V 1PH 3W (Split Phase)	100A	2 SOLID CTs	MK240-1SW
	200A	2 SOLID CTs	MK240-2SW

### Mini Meter Kits - Outdoor Enclosure

VOLTAGE	AMPS	CTS INCLUDED	CAT. NO.
120/208V 3W or 120/240V 1PH 3W (Split Phase)	100A	2 SOLID CTs	MO240-1SW
	200A	2 SOLID CTs	MO240-2SW
120/208V 2PH 3W or 120/240V 1PH 3W (Split Phase)	100A	2 Split CTs	MO240-01W
	200A	2 Split CTs	MO240-02W

### 0.5% Mini Meter Kits - Indoor Flush Mount Enclosure\*

VOLTAGE	AMPS	CTS INCLUDED	CAT. NO.
120/208/240V 2PH 3W	200 A	2 SOLID CTs	6P201-C02
120/208/240V 2PH 3W (includes Time of Use (TOU))	200 A	2 SOLID CTs	6W201-C02
120/208/240V 2PH 3W (includes Time of Use (TOU) & Temperature)	200 A	2 SOLID CTs	6W201-D02
120/208/240V 2PH 3W (includes Time of Use (TOU) & Delta Temperature)	200 A	2 SOLID CTs	6W201-E02
120/208/240V 2PH 3W (OEM Module Kit)	200 A	2 SOLID CTs	7H201-S02

### 0.5% Mini Meter Kits - Indoor Surface Mount Enclosure\*

VOLTAGE	AMPS	CTS INCLUDED	CAT. NO.
120/208/240V 2PH 3W	200 A	2 SOLID CTs	6PSMT-C02
120/240V 1PH 3W (includes Time of Use (TOU) enabled kWh Transceiver)	200 A	2 SOLID CTs	MMSMT-C02
120/240V 1PH 3W (includes Time of Use (TOU) and Temperature enabled kWh Transceiver)	200 A	2 SOLID CTs	MMSMT-D02
120/240V 1PH 3W (includes Time of Use (TOU) and Delta Temperature enabled kWh Transceiver)	200 A	2 SOLID CTs	MMSMT-E02

### Wireless Repeater

CAT. NO.	DESCRIPTION
T101R-05V	Repeater, 5V, includes 5VDC 1A plug-in power supply and internal backup battery

### Wireless Data Concentrating Access Points (DCAPs)\*\*

CAT. NO.	DESCRIPTION
T201E-151	Data Concentrating Access Point (DCAP), Low Capacity (150 meter points max), built-in radio receiver
T201E-102	DCAP, High Capacity (1000 meter points max), built-in radio receiver
T201G-UNL	DCAP-Gateway, unlimited meter points, built-in radio receiver
T221C-202	Central Database Gateway, supports up to 2000 meter points

\*For a complete wireless Automatic Meter Reading (AMR) system, data transceivers and other wireless network components (DCAPs and Repeaters) are required as dictated by building construction.

TOU = Time of Use, providing 15-minute time-stamped kWh interval data

\*\*All DCAPs and Gateways shipped with 6VDC, minimum 1.5 Amp power supply, Ethernet cable and USB cable

## Multiple Meter Units (MMUs)

For both retrofit and new construction, Leviton Multiple Meter Units (MMUs) are fast and easy to install. They come pre-wired per project configuration sheets with clearly labeled connections, minimizing the electrical installation time, another great money saving feature.

All Leviton MMUs are UL Listed assemblies, giving your customers extra assurance for no extra cost. Choose from an indoor steel model in 4/8/16 unit single- or three-phase configurations utilizing Series 2000 meters or a weatherproof outdoor enclosure in 4/8/19 unit single-phase configurations utilizing Mini Meters. If your application requires a different configuration, Leviton is ready to help.



Series 2000 Multiple Meter Unit (MMU)



Mini Meter Multiple Meter Unit (MMU)

## MINI METER MMUS

VOLTAGE	DESCRIPTION	CAT. NO.
<b>MEDIUM MINI METER MMU, 2-4 METERS</b>		
120/240V 1PH 3W	2 Dual Element Meters	6M202-CFG
	3 Dual Element Meters	6M203-CFG
	4 Dual Element Meters	6M204-CFG
120/208V 3PH 4W	2 Dual Element Meters	6M302-CFG
	3 Dual Element Meters	6M303-CFG
	4 Dual Element Meters	6M304-CFG
<b>LARGE MINI METER MMU, 5-8 METERS</b>		
120/240V 1PH 3W	5 Dual Element Meters	6L205-CFG
	6 Dual Element Meters	6L206-CFG
	7 Dual Element Meters	6L207-CFG
	8 Dual Element Meters	6L208-CFG
120/208V 3PH 4W	5 Dual Element Meters	6L305-CFG
	6 Dual Element Meters	6L306-CFG
	7 Dual Element Meters	6L307-CFG
	8 Dual Element Meters	6L308-CFG
<b>EXTRA-LARGE MINI METER MMU, 9-19 METERS, NEMA 4X ENCLOSURE</b>		
120/240V 1PH 3W	9 Dual Element Meters	6X209-CFG
	10 Dual Element Meters	6X210-CFG
	11 Dual Element Meters	6X211-CFG
	12 Dual Element Meters	6X212-CFG
	13 Dual Element Meters	6X213-CFG
	14 Dual Element Meters	6X214-CFG
	15 Dual Element Meters	6X215-CFG
	16 Dual Element Meters	6X216-CFG
	17 Dual Element Meters	6X217-CFG
18 Dual Element Meters	6X218-CFG	
19 Dual Element Meters	6X219-CFG	
120/208V 3PH 4W	9 Dual Element Meters	6X309-CFG
	10 Dual Element Meters	6X310-CFG
	11 Dual Element Meters	6X311-CFG
	12 Dual Element Meters	6X312-CFG
	13 Dual Element Meters	6X313-CFG
	14 Dual Element Meters	6X314-CFG
	15 Dual Element Meters	6X315-CFG
	16 Dual Element Meters	6X316-CFG
	17 Dual Element Meters	6X317-CFG
18 Dual Element Meters	6X318-CFG	
19 Dual Element Meters	6X319-CFG	

## SERIES 2000 MMUs

VOLTAGE	DESCRIPTION	CAT. NO.
<b>MEDIUM SERIES 2000 MMU, 2-4 METERS</b>		
120/208V 3PH 4W	2 Three Element Meters	2M202-CFG
	3 Three Element Meters	2M203-CFG
	4 Three Element Meters	2M204-CFG
277/480V 3PH 4W	2 Three Element Meters	2M402-CFG
	3 Three Element Meters	2M403-CFG
	4 Three Element Meters	2M404-CFG
<b>LARGE SERIES 2000 MMU, 5-8 METERS</b>		
120/208V 3PH 4W	5 Three Element Meters	2L205-CFG
	6 Three Element Meters	2L206-CFG
	7 Three Element Meters	2L207-CFG
	8 Three Element Meters	2L208-CFG
277/480V 3PH 4W	5 Three Element Meters	2L405-CFG
	6 Three Element Meters	2L406-CFG
	7 Three Element Meters	2L407-CFG
	8 Three Element Meters	2L408-CFG
<b>EXTRA-LARGE SERIES 2000 MMU, 9-16 METERS, NEMA 4X ENCLOSURE</b>		
120/208V 3PH 4W	9 Three Element Meters	2X209-CFG
	10 Three Element Meters	2X210-CFG
	11 Three Element Meters	2X211-CFG
	12 Three Element Meters	2X212-CFG
	13 Three Element Meters	2X213-CFG
	14 Three Element Meters	2X214-CFG
	15 Three Element Meters	2X215-CFG
	16 Three Element Meters	2X216-CFG
	277/480V 3PH 4W	9 Three Element Meters
10 Three Element Meters		2X410-CFG
11 Three Element Meters		2X411-CFG
12 Three Element Meters		2X412-CFG
13 Three Element Meters		2X413-CFG
14 Three Element Meters		2X414-CFG
15 Three Element Meters		2X415-CFG
16 Three Element Meters	2X416-CFG	

## Series 8000 Multi-Point High Density Meters

The VerifEye™ Series 8000 Multiple Point Meters are designed to meter high density applications such as multi-tenant office and residential buildings, medium-sized retail stores, institutional facilities, and more. For easy data accessibility, the Series 8000 design is based on an open protocol network to transmit data over ModBus and BACnet™. Combining revenue-grade electrical submetering with building automation communications technology, the Series 8000 complies with all regulatory electric safety and communications requirements and meets stringent ANSI 0.5 Accuracy Class standards.

- Allows for revenue grade metering of up to 24 individual circuits in one device
- Provides multiple electric loads in one device
- Monitors up to 24 current transformers - 8 3-phase, 12 2-phase or 24 single phase loads
- Branch Circuit Monitoring
- Universal voltage
- 100-5,000 Amp current transformers
- Native communications protocol - Modbus TCP, Modbus RTU (RS-485) and BACNet IP standard
- Measures kilowatt hours, kW demand, volts, amps
- Interval and net metering
- Configurable via Ethernet or ModBus RTU network to BMS or VerifEye software solutions



### SERIES 8000 MULTI-POINT HIGH DENSITY METERS

VOLTAGE	DESCRIPTION	CAT. NO.
<b>RESIDENTIAL</b>		
120/208/240V 1PH 3W	Phase Config 3x2 with Wiring Harness	S8120-032
120/208/240V 1PH 3W	Phase Config 6x2 with Wiring Harness	S8120-062
120/208/240V 1PH 3W	Phase Config 9x2 with Wiring Harness	S8120-092
120/208/240V 1PH 3W	Phase Config 12x2 with Wiring Harness	S8120-122
<b>COMMERCIAL &amp; INDUSTRIAL</b>		
120/208V or 277/480V 3PH	Phase Config 8x3 with Termination Enclosure	S8UTS-083
120/208V or 277/480V 1PH 3W	Phase Config 12x2 with Termination Enclosure	S8UTS-122
120/208V or 277/480V 1PH 3W	Phase Config 24x1 with Termination Enclosure	S8UTS-241
120/208V or 277/480V 3PH	Phase Config 8x3 with Wiring Harness	S8UWH-083
120/208V or 277/480V 1PH 3W	Phase Config 12x2 with Wiring Harness	S8UWH-122
120/208V or 277/480V 1PH 3W	Phase Config 24x1 with Wiring Harness	S8UWH-241
480V Delta	Delta PTs with Enclosure	S480V-011

## Series 1000 Single Phase Meters

- kWh meter with optional Demand functionality (includes Reset Key)
- 100 - 800 Amps
- Isolated Pulse output - standard feature
- Large LCD Display
- Revenue grade accuracy: 0.5% accuracy class
- Use with split core or solid core CTs
- Up to three sets of CTs per phase can be paralleled per meter with no multipliers



### SERIES 1000 SINGLE PHASE METER KITS

Note: Kits include meter, specified enclosure and required current transformers

#### INDOOR ENCLOSURE

VOLTAGE	AMPS	CTS INCLUDED	CAT. NO.
<b>120V 1PH 2W</b>	100	1 Split CT	1K120-01W
	200	1 Split CT	1K120-02W
	400	1 Split CT	1K120-04W
	800	1 Split CT	1K120-08W
	100	1 SOLID CT	1K120-1SW
	200	1 SOLID CT	1K120-2SW
<b>120/208V 1PH 3W or 120/240V 1PH 3W (Split Phase)</b>	100	2 Split CTs	1K240-01W
	200	2 Split CTs	1K240-02W
	400	2 Split CTs	1K240-04W
	800	2 Split CTs	1K240-08W
	100	2 SOLID CTs	1K240-1SW
	200	2 SOLID CTs	1K240-2SW
<b>277V 1PH 2W</b>	100	1 Split CT	1K277-01W
	200	1 Split CT	1K277-02W
	400	1 Split CT	1K277-04W
	800	1 Split CT	1K277-08W
	100	1 SOLID CT	1K277-1SW
	200	1 SOLID CT	1K277-2SW

#### OUTDOOR ENCLOSURE

VOLTAGE	AMPS	CTS INCLUDED	CAT. NO.
<b>120V 1PH 2W</b>	100	1 Split CT	1O120-01W
	200	1 Split CT	1O120-02W
	400	1 Split CT	1O120-04W
	800	1 Split CT	1O120-08W
	<b>120/208V 1PH 3W or 120/240V 1PH 3W (Split Phase)</b>	100	2 Split CTs
200		2 Split CTs	1O240-02W
400		2 Split CTs	1O240-04W
<b>277V 1PH 2W</b>	800	2 Split CTs	1O240-08W
	100	1 Split CT	1O277-01W
	200	1 Split CT	1O277-02W
	400	1 Split CT	1O277-04W
	800	1 Split CT	1O277-08W

## Series 2000 Three Phase Meters

- kWh meter with optional Demand functionality (includes Reset Key)
- 120/208V or 277/480V 3PH 4W WYE only
- 100 - 1200 Amps
- Isolated Pulse output - standard feature
- Large LCD Display
- Revenue grade accuracy: 0.5% accuracy class
- Use with split core or solid core CTs
- Up to three sets of CTs per phase can be paralleled per meter with no multipliers



### SERIES 2000 THREE PHASE METER KITS

Note: Kits include meter, specified enclosure and required current transformers

#### INDOOR ENCLOSURE

VOLTAGE	AMPS	CTS INCLUDED	CAT. NO.
<b>120/208V 3PH 4W WYE kWh Meter</b>	100	3 Split CTs	2K208-01W
	200	3 Split CTs	2K208-02W
	400	3 Split CTs	2K208-04W
	800	3 Split CTs	2K208-08W
	1200	3 Split CTs	2K208-12W
	100	3 SOLID CTs	2K208-1SW
	200	3 SOLID CTs	2K208-2SW
<b>277/480V 3PH 4W WYE kWh Meter</b>	100	3 Split CTs	2K480-01W
	200	3 Split CTs	2K480-02W
	400	3 Split CTs	2K480-04W
	800	3 Split CTs	2K480-08W
	1200	3 Split CTs	2K480-12W
	100	3 SOLID CTs	2K480-1SW
	200	3 SOLID CTs	2K480-2SW
<b>120/208V 3PH 4W WYE Demand Meter</b>	100	3 Split CTs	2K208-01D
	200	3 Split CTs	2K208-02D
	400	3 Split CTs	2K208-04D
	800	3 Split CTs	2K208-08D
	1200	3 Split CTs	2K208-12D
<b>277/480V 3PH 4W WYE Demand Meter</b>	100	3 Split CTs	2K480-01D
	200	3 Split CTs	2K480-02D
	400	3 Split CTs	2K480-04D
	800	3 Split CTs	2K480-08D
	1200	3 Split CTs	2K480-12D

#### OUTDOOR ENCLOSURE

VOLTAGE	AMPS	CTS INCLUDED	CAT. NO.
<b>120/208V 3PH 4W WYE kWh Meter</b>	100	3 Split CTs	2O208-01W
	200	3 Split CTs	2O208-02W
	400	3 Split CTs	2O208-04W
	800	3 Split CTs	2O208-08W
	1200	3 Split CTs	2O208-12W
	<b>277/480V 3PH 4W WYE kWh Meter</b>	100	3 Split CTs
200		3 Split CTs	2O480-02W
400		3 Split CTs	2O480-04W
800		3 Split CTs	2O480-08W
1200		3 Split CTs	2O480-12W

## Series 3300 Multi-Function RS485 Meters

## Series 3500 Multi-Function Ethernet Meters

- Communications Protocol
  - Series 3300
    - Modbus RTU or BACnet MS/TP over RS485
    - Isolated pulse output
  - Series 3500
    - Modbus TCP/IP or BACnet IP
    - Isolated pulse output
- Universal voltage for 120-480V
- Measured Parameters
  - Total Meter:
    - kWh/kW
    - kVAh
    - kVA and kVAR
    - Power Factor
    - Line Frequency
    - Voltage L-L
  - Per Phase:
    - Voltage L-N
    - Current
    - Watts
    - VA, VAR
    - Power Factor

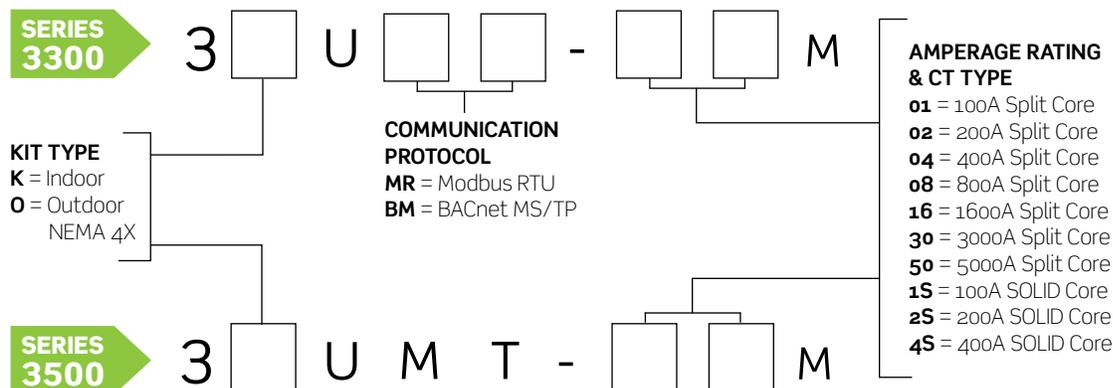


- Large LCD display with scroll feature
- Revenue grade accuracy: 0.5% accuracy class
- Installation diagnostics
- Low voltage detection
- Real time clock with battery backup for TOU reading
- Use with split core or solid core CTs
- Up to three sets of CTs can be paralleled per meter with no multipliers
- Indoor JIC steel and outdoor (NEMA 4X) enclosure options
- UL/cUL Listed Energy Usage Monitor per CCN FTRZ



### SERIES 3300 AND SERIES 3500 METER KITS

Note: Kits include meter, specified enclosure and required current transformers



## Current Transformers

The better the equipment, the better the measurement. Leviton meters utilize highly accurate current transformers for revenue-grade performance certified to ANSI standards. Competing products use current sensors that do not provide the same level of performance. Leviton Meter Kits include Split Core or Solid Core Current Transformers (CTs) for high-quality, long-term accuracy and reliability. For added safety, all Leviton current transformers come with built-in voltage suppression devices that prevent hazardous voltages from developing on CT secondaries should they become disconnected from a meter with load current present.

Compact and cost-effective solid core CTs slip over power lines to measure the electrical current flowing through the line. They are compact and cost effective. For solid core CT installation, power must be de-energized and the circuit opened, in order to slip the CT over the power line.

### CURRENT TRANSFORMERS

NOTE: Meters sold separately.

AMP	CAT. NO.	DESCRIPTION
<b>SINGLES</b>		
<b>SOLID CORE</b>		
100:0.1A	CDE01-K11	Solid Core, 0.67", Black
100:0.1A	CDE01-L11	Solid Core, 0.67", Blue
100:0.1A	CDE01-R11	Solid Core, 0.67", Red
100:0.1A	CDA01-K12	Solid Core 0.72", Black
100:0.1A	CDA01-L12	Solid Core 0.72", Blue
100:0.1A	CDA01-R12	Solid Core 0.72", Red
200:0.1A	CDE02-K11	Solid Core, 0.67", Black
200:0.1A	CDE02-L11	Solid Core, 0.67", Blue
200:0.1A	CDE02-R11	Solid Core, 0.67", Red
200:0.1A	CDA02-K12	Solid Core, 0.72", Black
200:0.1A	CDA02-L12	Solid Core, 0.72", Blue
200:0.1A	CDA02-R12	Solid Core, 0.72", Red
400:0.1A	CDF04-K24	Solid Core, 1.5", Black
<b>SPLIT CORE</b>		
100:0.1A	CTD01-K16	Split Core, .75" x .75"
200:0.1A	CTD02-K16	Split Core, 1" x 1"
400:0.1A	CTD04-K23	Split Core, 1.5", x 1.5"
800:0.1A	CTC08-K46	Split Core, 3" x 3.5"
1200:0.1A	CTC12-K46	Split Core, 4" x 6"
1600:0.1A	CTC16-K96	Split Core, 4" x 6"
3000:0.1A	CTC30-57B*	Split Core, 5" x 7"
5000:0.1A	CTC50-57B*	Split Core, 5" x 7"
<b>KITS</b>		
100:0.1A	CDE01-211	CT Kit, 0.67", Red, Black
100:0.1A	CDE01-311	CT Kit, 0.67", Blue, Red, Black
100:0.1A	CDA01-212	CT Kit, 0.72", Red, Black
100:0.1A	CDA01-312	CT Kit, 0.72", Blue, Red, Black
200:0.1A	CDE02-211	CT Kit, 0.67", Red, Black
200:0.1A	CDE02-311	CT Kit, .067", Blue, Red, Black
200:0.1A	CDA02-212	CT Kit, 0.72", Red, Black
200:0.1A	CDA02-312	CT Kit, 0.72", Blue, Red, Black



Solid Core Current Transformers

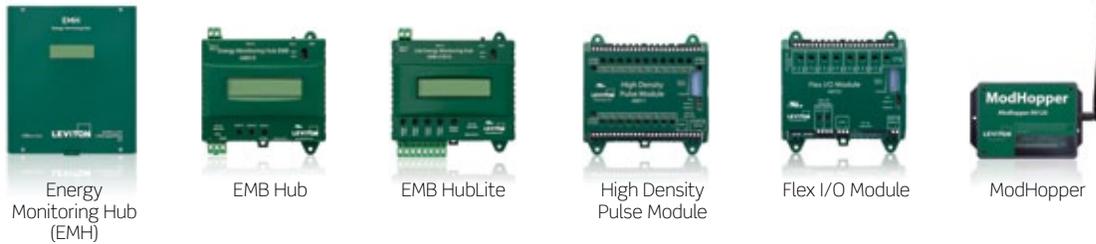


Split Core Current Transformers

**\*Consult factory for availability.**

**System Accuracy:** ±1% of reading from 10% to 100% of the rated current of the CTs, accomplished by matching the CTs with electronics and calibrating them as a system.

## VerifEye Communication Products



Specifications	Data Acquisition Hubs	Data Acquisition Hubs	Data Acquisition Hubs	Input/Output Module	Input/Output Module	Wireless Modbus/Pulse Transceiver
	Energy Monitoring Hub (EMH)	EMB Hub	EMB HubLite	High Density Pulse Module	Flex I/O Module	ModHopper
	A8812	A8810	A7810	A8911	A8332	R9120
Protocols	Modbus RTU Modbus TCP TCP/IP PPP HTTP/HTML FTP NTP XML SNMP-Trap	Modbus RTU Modbus TCP TCP/IP PPP HTTP/HTML FTP NTP XML SNMP-Trap	Modbus TCP TCP/IP PPP HTTP/HTML FTP NTP XML SNMP-Trap	Modbus RTU	Modbus RTU	Modbus RTU
Applications	<p>Push-or-pull meter data to software applications</p> <p>Use with an Ethernet (LAN) connection to push-or-pull data via HTTP, XML, FTP, or any custom protocol</p> <p>Connect to web-based (IP-based) software dashboards, energy information management systems and demand response systems</p>			<p>Use with EMH to take advantage of plug-in communication</p> <p>Use with ModHopper for wireless communication</p> <p>Push-or-pull meter data to VerifEye kiosks and software applications</p>		<p>Designed specifically for wireless sub-metering</p> <p>Collect meter data from multiple buildings over long distances “Self-managed” mesh network keeps system functioning with high reliability</p>

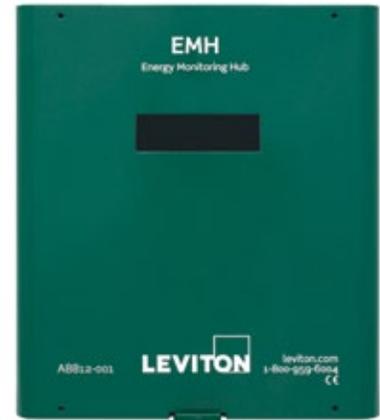
### HOW TO SELECT THE APPROPRIATE DATA ACQUISITION HUB

	Modbus TCP	Modbus RTU	4 Pulse Inputs Onboard	8 Flex Inputs On Board*	Configured for Leviton Energy Manager	Requires Separately Ordered Power Supply
<b>A8812-001 EMH</b>	X	X	-	X	X	-
<b>A8812-000 EMH (non-configured)</b>	X	X	-	X	-	-
<b>A8810-000 EMB Hub</b>	X	X	-	-	-	X
<b>A7810-000 EMB HubLite</b>	X	-	X	-	-	X

\* Pulse, analog, status, and resistive.

## Metering Communications Systems

To create a data network between Leviton submeters and stakeholders (BAS, third party billing, Leviton Energy Manager software, etc.), Leviton offers Metering Communication Systems. These solutions transmit data from meters to end systems, creating a seamless transition between data collection and data display. Leviton Metering Communications Systems also enable facilities to create metering systems that can easily share data through open protocols such as Modbus, and IP-based data transfer through HTTP/FTP of .csv or XML files. The results are robust and reliable networks scalable to accommodate future expansion, with data made accessible from any internal or external location.



Energy Monitoring Hub

## Data Acquisition Hubs

### ENERGY MONITORING HUBS

Metering Communication Hubs, including the Energy Monitoring Hub (EMH), EMB and EMBLite, are intelligent, flexible data acquisition servers allowing users to collect energy data from meters and environmental sensors. Designed to connect to IP-based applications such as enterprise energy management, demand response and smart grid programs, Hub servers let you connect thousands of energy points, benchmark energy usage and reduce energy costs.

- Collects and logs data from connected wired or wireless devices based on user-set intervals
- Pushes or pulls data via HTTP, XML, FTP or any custom protocol using an Ethernet (LAN) connection
- No software required: Information can be accessed through any web browser in any location
- Plug and play connectivity
- Compatible with nearly any front-end software platform allowing customers to use a variety of reporting tools
- Push or pull meter data to energy dashboards, kiosks and software applications
- Monitor performance of critical systems (lighting, HVAC, PDUs, inverters, etc.)



EMB Hub



EMB HubLite

### DATA ACQUISITION HUBS

CAT. NO.	DESCRIPTION
A8812-001	Energy Monitoring Hub - Configured for Leviton Energy Manager
A8812-000	Energy Monitoring Hub - Non-Configured
A8810-000	EMB Hub
A7810-000	EMB HubLite
YBM05-010	Power Supply for EMB Hub and EMB HubLite

## Input/Output Modules

### HIGH DENSITY PULSE MODULE

The High Density Pulse Module provides a convenient way to expand a Leviton Metering System by connecting the HD Pulse Module to an Energy Monitoring Hub (EMH) and/or ModHopper for system expansion. The HD Pulse Module accepts up to 23 standard pulse sensors and can function as a slave device with any Modbus master. This data can easily be integrated to a network of other critical energy sensors to provide a comprehensive energy monitoring solution. The HD Pulse Module is ideal for applications with a high density of pulse output devices, giving users access to meters that would previously require multiple modules.

- External communications handled via shielded twisted pair 18-22 gauge wire allowing communication up to 4000 feet and pulse input communications up to 200 feet (consult factory for longer runs) using 18-24 gauge control wire
- DIN or wall mounting make installations quick and easy
- Device verification - LED indicators for each pulse input allow for fast indication and verification of pulses to reduce installation and troubleshooting time
- Non-volatile memory retains configuration and pulse count totals during power failures for reliable data collection and retention
- Easily add pulse meters to Modbus network for a scalable, open protocol solution
- Field upgradable firmware for user-friendly future upgrades and expansion



High Density Pulse Module

### FLEX I/O MODULE

The Flex I/O Module is a cost-effective way to collect data from meters or sensors and bring the information into a Modbus network or energy monitoring system. As a stand-alone or bundled package, the Leviton Flex I/O can be incorporated with data acquisition and metering devices to provide a cost-effective energy monitoring solution. The Flex I/O is compatible with virtually any Modbus master, allowing customers the flexibility to use it in existing Modbus networks. Use with the Leviton Energy Monitoring Hub (EMH).

- Easily add meters and sensor to Modbus network
- 8x user selectable inputs
- 2x output relays
- 2x pulse replicator
- Non-volatile memory
- Industrial temperature range (-30°C to 70°C)
- LEDs for visual verification/status reduce installation and troubleshooting time
- Din or wall mount for easy installation
- Field upgradable firmware for user-friendly future upgrades and expansion



Flex I/O Module

### INPUT/OUTPUT MODULES

CAT. NO.	DESCRIPTION
A8911-000	High Density Pulse Module, 23 Inputs
A8332-000	Flex I/O Module, 8 User Selectable Inputs, 2 Relay Outputs

## Wireless Modbus/Pulse Transceiver

### MODHOPPER

The ModHopper is a breakthrough mesh technology design that makes connecting Modbus RTU (RS485) and pulse devices simple and cost effective. Our “smart” ModHopper transceivers eliminate the need for costly wiring runs allowing users to capture meter data in the most challenging retrofit and campus environments. Collect meter points in existing buildings with minimum down-time or disruption of day-to-day operations.

- Designed specifically for wireless metering and Leviton Metering Solutions for guaranteed compatibility
- No software or programming required and devices automatically configure when powered, reducing labor costs and installation time
- Wireless “mesh” network—self-healing, self-optimizing for ease of installation and maintenance
- Connect up to 32 Modbus and 2 pulse devices per ModHopper for the ultimate expandable solution
- Long distance communication (3000ft indoor/14 miles LOS Outdoors) for flexibility of placement and easier future expansion
- Multiple independent network capability
- Reliable, constant two-way communication and packet verification
- Point to multi-point communication
- Field upgradable firmware for user-friendly future upgrades and expansion



ModHopper

### WIRELESS MODBUS/PULSE TRANSCEIVER

CAT. NO.	DESCRIPTION
R9120-500	ModHopper and Power Supply

# VerifEye Software Products



BillSuite



Building Manager Online (BMO) 2.0



Energy Manager

Specifications	Tenant Billing Software	Measurement & Verification (M&V) Software	
	BillSuite	Building Manager Online 2.0 (BMO 2.0)	Energy Manager
	LBSSW	BMOSW	LEMS8
Primary Functions	Automates the tenant billing process by eliminating manual meter readings	Allows users to quickly access energy consumption information via a web-based platform  Plot charts and view data quickly without any custom software installed on a PC - simply log on to the BMO website	Analyzes, formats and reports data gathered from VerifEye Submetering Solutions  Users log in to Energy Manager website and access data and reports in real-time
Key Features	Monitor energy consumption of each tenant or whole building on a 24/7 basis  Meters can be in a basement, wire closet or individual unit  Generate bills from any PC - requires Windows 7 or better  Monthly and periodic billing reports for any or all VerifEye submeters  Energy profile to identify peak demand and energy waste	Delivers simple graphical interface for plotting energy information and identifying anomalies and peak demand in near real time  Uploads timely data and firmware updates	Illustrates information in real time  Includes an automatic reporting system and an instant alarm notification system  Produces customized reports to suit precise requirements  Collects information from 1 to 60 minute intervals for in-depth tracking  Reporting based on 15 minute intervals
Key Benefits	Generate monthly electricity bills for each tenant, which reflect actual energy usage  Improve cash flow and increase net operating income  Eliminate uncertainty of variable utility costs  Delegate energy usage accountability to tenants  Improve tenant satisfaction, retention and property values  Identify and fix energy waste, reducing overall costs	View building or end-use for a summary of operating parameters with the click of a mouse  Investigate potential building problems and alarms easily  Plot charts to show trends  Select date ranges to display information in intervals from one year to as little as an hour  Copy and paste graphs into your own reports  Configure VerifEye HUB communication products remotely  Add or change configuration of attached sensors  Add or change the data recording interval, alarm thresholds, even the device name	Identify cost saving measures that can lead to greater profitability  Discover energy inefficiencies that may be difficult to see  Establish baselines, budgets and allocation of energy use and cost within an enterprise to track and analyze goals and performance  Develop responsible environmental goals and conservation measures while measuring and managing facility's carbon footprint  Provide outstanding communication and support, enabling facilities to have the most advanced and intuitive energy management reporting in the industry

## VerifEye Software

### SAVE ENERGY, REDUCE COSTS, BE SUSTAINABLE

With a competitive global economy, soaring energy prices, increasing environmental issues and technology-based decision making, your profitability depends on the ability to analyze and control operating costs. Better energy management saves money and translates to an improved bottom line.

#### VERIFEYE SOFTWARE INCLUDES:

- **Tenant Billing**
  - **BillSuite** - provides individual tenant billing capabilities to ensure accurate and complete recovery of tenant energy costs
- **Measurement & Verification (M&V)**
  - **Building Manager Online (BMO) 2.0** - web-based interval data collection software platform
  - **Energy Manager** - energy monitoring platform which interprets submeter data and exports real-time reports in selected time increments, stretching from hour-by-hour to year-by-year

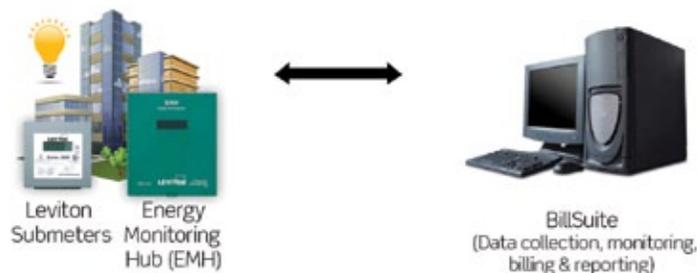
## Tenant Billing Software

### MEASURE. MONITOR. MANAGE. BILL.

Generate billing based on actual tenant consumption. BillSuite is a PC based software program that provides individual tenant billing capabilities to ensure accurate and complete recovery of tenant energy costs. This software solution automates the tenant billing process by eliminating manual meter readings for simplified, more accurate measurement and verification. BillSuite collects energy consumption data from all meters on a periodic basis and generates energy bills, billing reports, energy profiles as well as graphs. Other submeters such as gas, water, BTU, etc. can be added to the tenant bill.

## How VerifEye BillSuite Tenant Billing Software Works

### SIMPLE, EFFECTIVE, TURN KEY SOLUTION TO MONITOR & BILL ENERGY USAGE



- **Meters** record *real-time* kWh and kW consumption data
- **Energy Monitoring Hub (EMH)** receives meter data and pushes it to BillSuite
- **BillSuite** collects data, generates individual tenant bills using customizable utility rates, and provides graphing and trending capabilities
- **User** logs into BillSuite and accesses billings and reports



## Building Manager Online (BMO) 2.0



- Leviton hosted software application - no software installation required
- Set alarms and view graphical and historical data in intervals from one year to as little as an hour
- Provides a daily view summary of load profiles to help identify high and low consumption days and visual daily trending patterns
- Shows the effects of energy conservation measures by tracking load profiles over a given time period
- Quickly view any building or end-user for a summary of operating parameters
- Export data to spreadsheets for analysis (.csv files)
- Plot charts to show trends and provide analytical charts with demand profiling
- Select date ranges to display information
- Copy and paste graphs into your own reports with BMO's convenient legends

### BBUILDING MANAGER ONLINE (BMO) 2.0 SOFTWARE

CAT. NO.	DESCRIPTION
BMOSW-SUB	Building Manager Online (BMO) 2.0 Software Subscription

## Energy Manager Software



Annual Report



Multiple Meter Analysis Report

- Simplified, easy to use with intuitive drilldown functionality
- Identify cost saving measures that can lead to greater profitability
- Discover energy inefficiencies that may be difficult to see
- Establish baselines, budgets and allocation of energy use & costs within an enterprise
- Measure and monitor the enterprise's carbon footprint
- Enhance LEED certification ratings with credits for measuring, monitoring and verification
- Adopt best-business practices for efficient energy use
- Track and trend consumption and site performance versus goals
- Highlight maintenance issues - identify sites and equipment that need immediate attention
- Trend, compare and validate utility bills
- Provide outstanding communication and support enabling your operations and management personnel to have the most advanced, intuitive energy management reporting at their fingertips in just 3 clicks!
  - Real-time Report
  - Daily Report
  - Weekly Report
  - Weekly Profile Report
  - Monthly Report
  - Monthly Profile Report
  - Annual Report
  - Comparison Report
  - Carbon Emissions Report
  - Energy Center Report

### ENERGY MANAGER SOFTWARE

CAT. NO.	DESCRIPTION
<b>YEAR ONE</b>	
LEMSB-000	Energy Manager Software - Base License Program - includes (8) control points and (1) user account
LEMS8-812	Energy Manager Software - Base License Program - includes EMH (Modbus/RS-485, Ethernet, No Modem), (8) Flex Inputs, (8) control points and (1) user account
LEMSS-000	Energy Manager Software - Specifier Version - includes (8) control points and (1) user account
LEMSg-812	Energy Manager Software - Specifier Version - includes EMH (Modbus/RS-485, Ethernet, No Modem), (8) Flex Inputs, (8) control points and (1) user account
LEMSU-000	Energy Manager Software - Additional User Account
LEMSP-000	Energy Manager Software - Additional Points License - includes (8) control points
<b>ANNUAL RENEWAL</b>	
LEMSB-R00	Energy Manager Software - Base License Program Renewal - includes (8) control points and (1) user account
LEMSS-R00	Energy Manager Software - Specifier Version Renewal - includes (8) control points and (1) user account
LEMSU-R00	Energy Manager Software - Additional User Account Renewal
LEMSP-R00	Energy Manager Software - Additional Points License Renewal - includes (8) control points



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