LEVITON®

VerifEye™ Submetering Solutions



SMARTer Metering. SMARTer Control. REAL Savings.

THE BENEFITS OF SUBMETERING

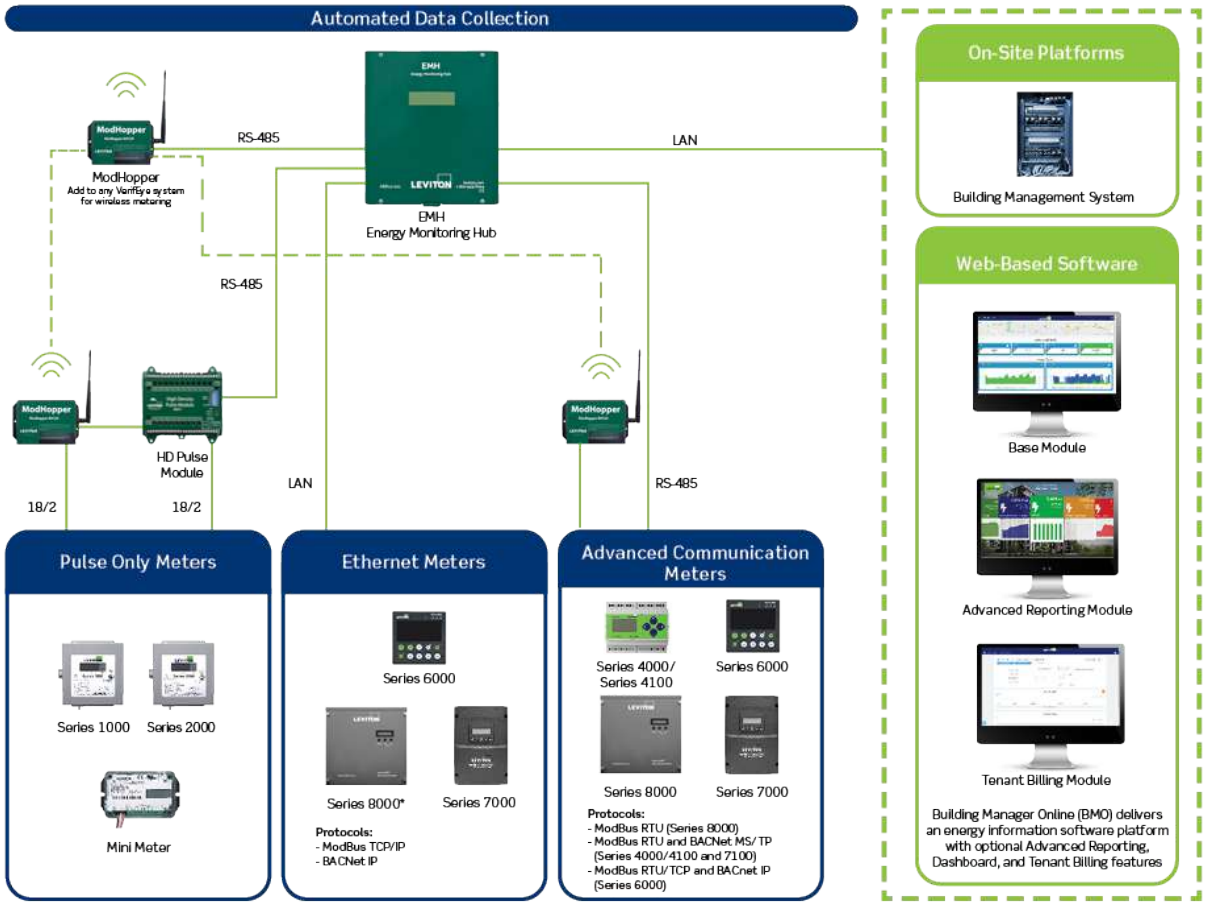
VerifEye™ delivers a comprehensive line of leading-edge submeters, communication products and software solutions as the key building blocks to help you better manage costs and conserve energy.

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 that can be expanded in the future. This seamless solution enables smart metering, meets code compliance requirements and simplifies the complexities of allocating energy costs and billing tenants. Building owners and managers can minimize usage of electric, water, gas and other utilities for long-term cost savings. Organizations that monitor and manage energy usage are better able to compete, to achieve real savings, and to meet code compliance and building efficiency standards such as LEED, 2022 California Title 24, ASHRAE 90.1, New York Local Law 88 and 133, and Seattle City Code.

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:

- Load profiling & benchmarking
- Tenant billing/cost allocation
- Measurement & verification (M&V)
- Energy conservation programs
- Building codes and standards compliance
- Green initiatives including LEED certification
- Federal government energy program compliance
- Building management systems (AMR/BMS/EMS) integration



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High-Rise Residential MDUs

New Construction Projects

With a VerifEye submetering solution utilizing Series 8000 Multiple Point Meters, Leviton can be your single source for a complete tenant metering solution designed specifically to suit high-density applications such as high-rise multiple dwelling units. A solution built around the Series 8000 is especially cost-effective for new construction due to its capacity and flexibility. The Series 8000 submeter is easy to install and wire and allows complete flexibility to fit any project design and is configurable for any type of electrical service including:

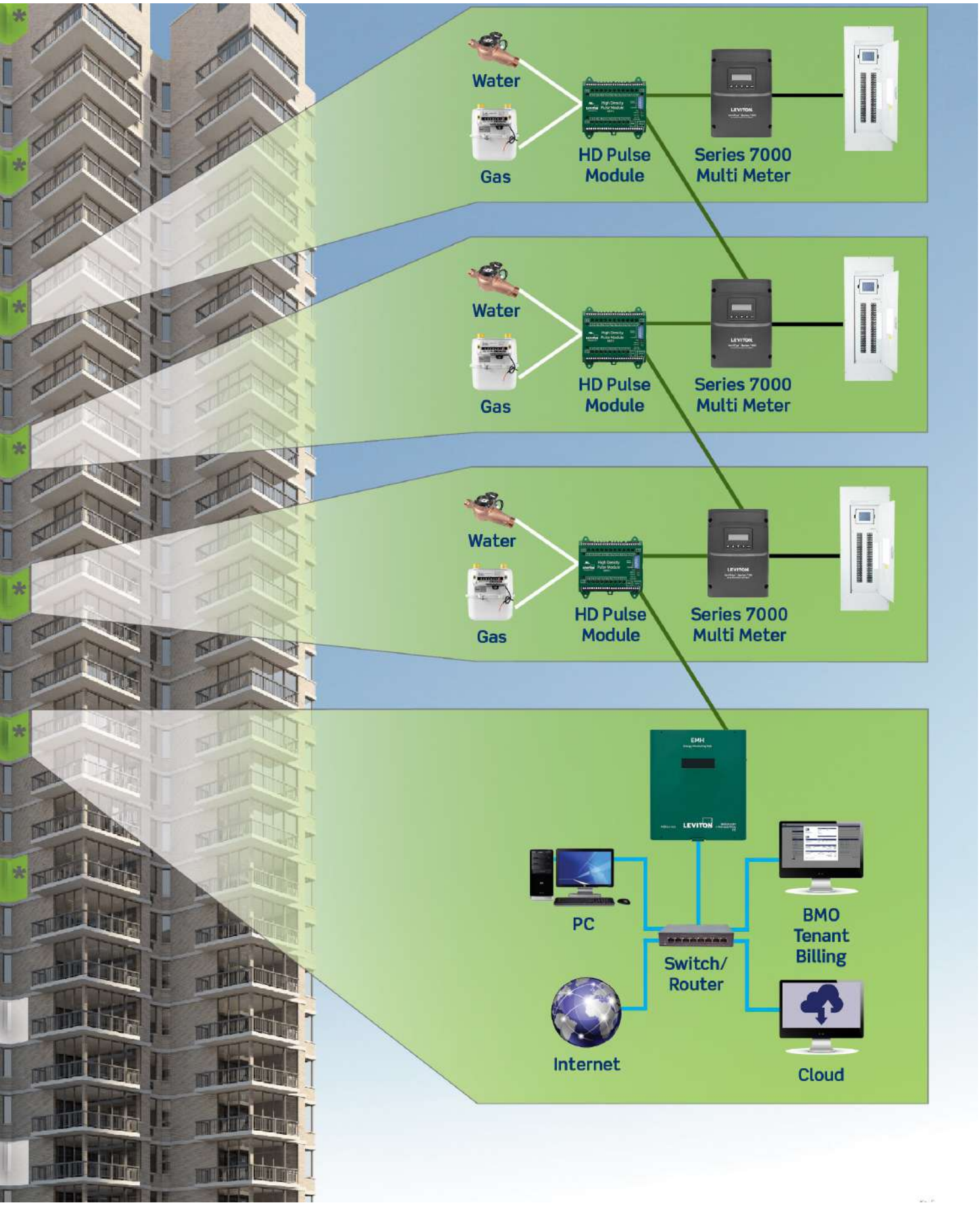
PUTTING IT ALL TOGETHER
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- 120/208V 1P3W (120/208V 3P4W service at the panel)
- 120/240V 1P3W
- 120/208V 3P4W

The Leviton Advantage

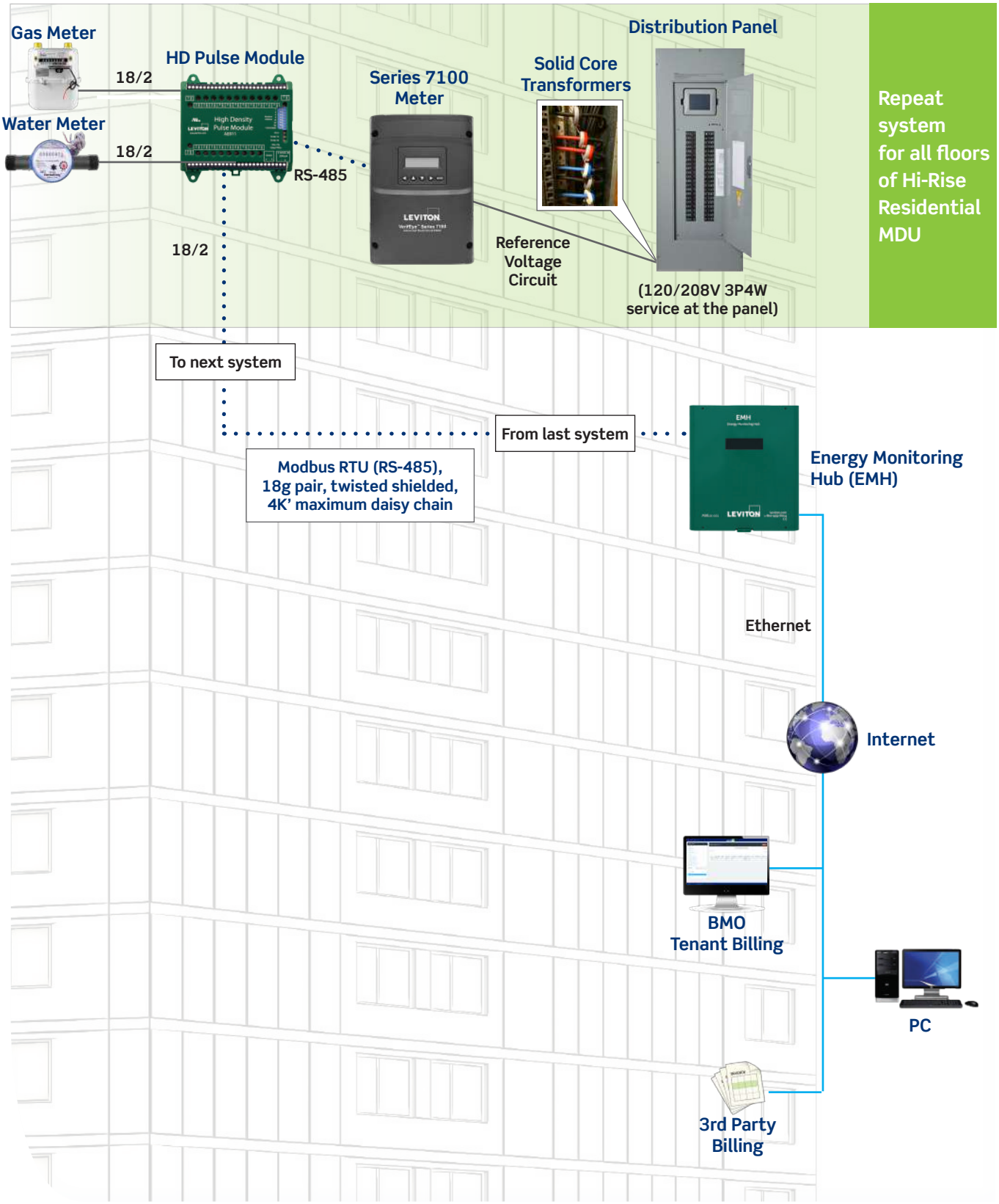
- Minimal wall space needed in electrical closets and reduced construction costs as compared to traditional metering
- Unique wiring harness minimizes installation labor and material cost (virtually eliminates the need to extend current transformer wires)
- Color coded current transformers to facilitate proper wiring
- Allows interface for water, gas, BTU, etc. meters into single communication system
- Leviton factory technicians provide system startup, programming and training services
- Open architecture provides flexibility to use your choice of third-party billing company or optional VerifEye Building Manager Online Tenant Billing web-based software




Water
Gas
HD Pulse Module
Series 7000 Multi Meter
Water
Gas
HD Pulse Module
Series 7000 Multi Meter
Water
Gas
HD Pulse Module
Series 7000 Multi Meter
EMH
LEVITON
PC
BMO Tenant Billing
Switch/ Router
Internet
Cloud

High-Rise Residential MDUs
New Construction Projects

PUTTING IT ALL TOGETHER



CORE LEVITON COMPONENTS

High Rise Residential MDUs			
Product	**Voltage**	**Description**	**Cat. No.**
HD Pulse Module	—	HD Pulse Module, 23 inputs	A8911-023
Series 7100 Meter	90-600VAC	Series 7100 Dual Voltage, Branch Circuit Monitor, 48 inputs, LCD display, NEMA 1 enclosure	71D48-000
Energy Monitoring Hub	—	Energy Monitoring Hub	A8812-000
BMO Tenant Billing Module Software	—	BMO Tenant Billing Module Software	BMOTB-050

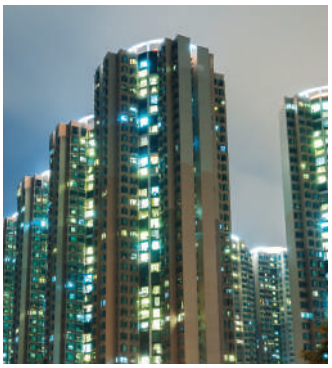
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Residential Multi-Dwelling Units

Master Metered Buildings (Retrofit)

Ratio-based billing for utilities leaves much to be desired. There's nothing fair about a single, traveling salesperson in a two-bedroom unit paying the same share of the utilities as a family of four living in the same size unit. It's also nearly impossible to stabilize building owner profits because although MDU utility bills rise, it can be difficult to retain tenants if rents are hiked annually.

PUTTING IT ALL TOGETHER
See pages 10-11

Leviton's VerifEye submetering solution provides the ability to lower utility costs by billing each apartment unit for what is actually used. VerifEye offers a tenant metering solution with wireless communications that is ideally suited to retrofit MDU applications. The core of the system is a compact, flush-mount or surface mount Leviton Mini Meter that is installed in each unit along with a wireless transmitter.

This wireless system enables either staff or a third party billing company to generate accurate bills. The size of the components and minimal wiring required helps make this a relatively easy-to-install and cost-effective system, especially where risers feed multiple units. With a Leviton submetering solution, owners can allocate costs directly to the tenant and lower overall operating expenses. Get revenue grade accuracy for tenant billing applications in a compact, cost-effective solution.

The Leviton Advantage

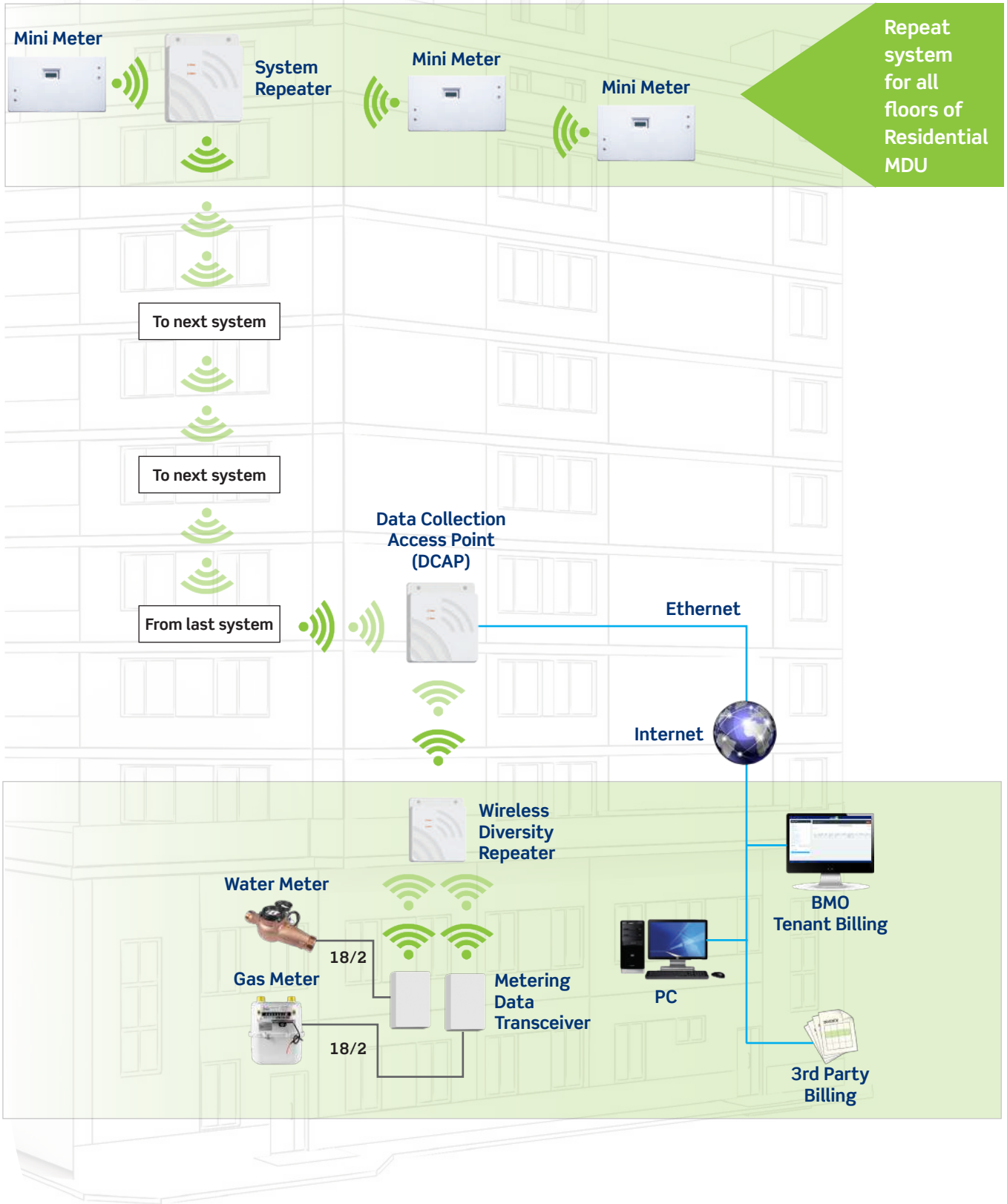
- Equitable unit/common-area cost allocation and accurate tenant billing eliminates burden of rising and unpredictable expenses
- Easy-to-retrofit and robust wireless communication system with small footprint
- Compact, flush mount or surface mount meter enclosure designed for installation in smaller apartments
- Allows for easy integration of water and gas meters as well
- Open architecture provides flexibility to use a third-party billing company
- Scalable, wireless repeater network can be used to accommodate large sites or added in the future for new tenants and building expansions




Wireless Meter
with AMR
Wireless
Repeater
PC
Switch/
Router
Internet
BMO
Tenant
Billing
Cloud
DCAP

Residential Multi-Dwelling Units
Master Metered Buildings (Retrofit)

PUTTING IT ALL TOGETHER



CORE LEVITON COMPONENTS

Residential Multi-Dwelling Units				
Product	**Voltage**	**Description**	**Amps**	**Cat. No.**
Mini Meter with Metering Data Transceiver	120/208V 3W or 120/240V 1PH 3W (Split Phase)	Meter Data Transceiver (MDT), battery input model battery powered, daily reads only (No TOU)	200A	MDTFW-2SW
Wireless Diversity Repeater	—	Repeater, 5V, includes 5VDC 1A plug-in power supply and internal backup battery	—	T95RX-000
Data Concentrating Access Point* * All DCAPs and Gateways shipped with 6VDC, minimum 1.5 Amp power supply, Ethernet cable and USB cable	—	Data Concentrating Access Point (DCAP), Low Capacity (150 meter points max), built-in radio receiver	—	T25DX-151
		DCAP, High Capacity (1000 meter points max), built-in radio receiver	—	T25DX-102
BMO Tenant Billing Module Software	—	BMO Tenant Billing Module Software	—	BMOTB-050

Note: These are examples of applications but should not be considered limitations to product and solution capability. Please contact your local Leviton representative for design assistance.











Commercial Offices/ Mixed Use

New Construction & Retrofit Applications

The benefits of implementing a cost-effective means of recovering utility costs, saving energy and reducing the carbon footprint can be substantial; even game changing. Whether for a small, two-story office building, a sprawling commercial office complex or a new mixed use facility, Leviton has the right combination of components and expertise to deliver the optimal solution.

PUTTING IT ALL TOGETHER
See pages 14-15

There's no doubt that redirecting accountability for energy usage to tenants and streamlining accounting operations by installing and implementing a Leviton submetering solution is a win-win in the commercial office/mixed use space. Precise monitoring of tenant utilities and building systems can identify opportunities for substantial cost savings. For a facility to be considered state of the art, it must incorporate technologies such as VerifEye submetering solutions. Leviton's energy management software can be used to push meter data to third party billing companies, energy monitoring software solutions, energy dashboards on kiosks or big screens displaying building energy conservation statistics and tenant awareness/sustainability messages.

The Leviton Advantage

- Redirect responsibility for utility usage from property owners to tenants and encourage conservation
- Easy-to-install/retrofit metering system: minimally wired installation saves time and reduces labor costs
- Universal energy information system designed to meet or exceed all energy data project goals using open protocol system platform and interfaces
- Cost-effective and convenient method of monitoring usage for energy savings, code compliance and LEED measurement and verification
- Provides web-based access to real-time usage data and reports and accommodates third-party billing
- Set energy goals at the building or portfolio level with BMO Advanced Reporting Module
- Access the Advanced Reporting Module data remotely via the web-based software

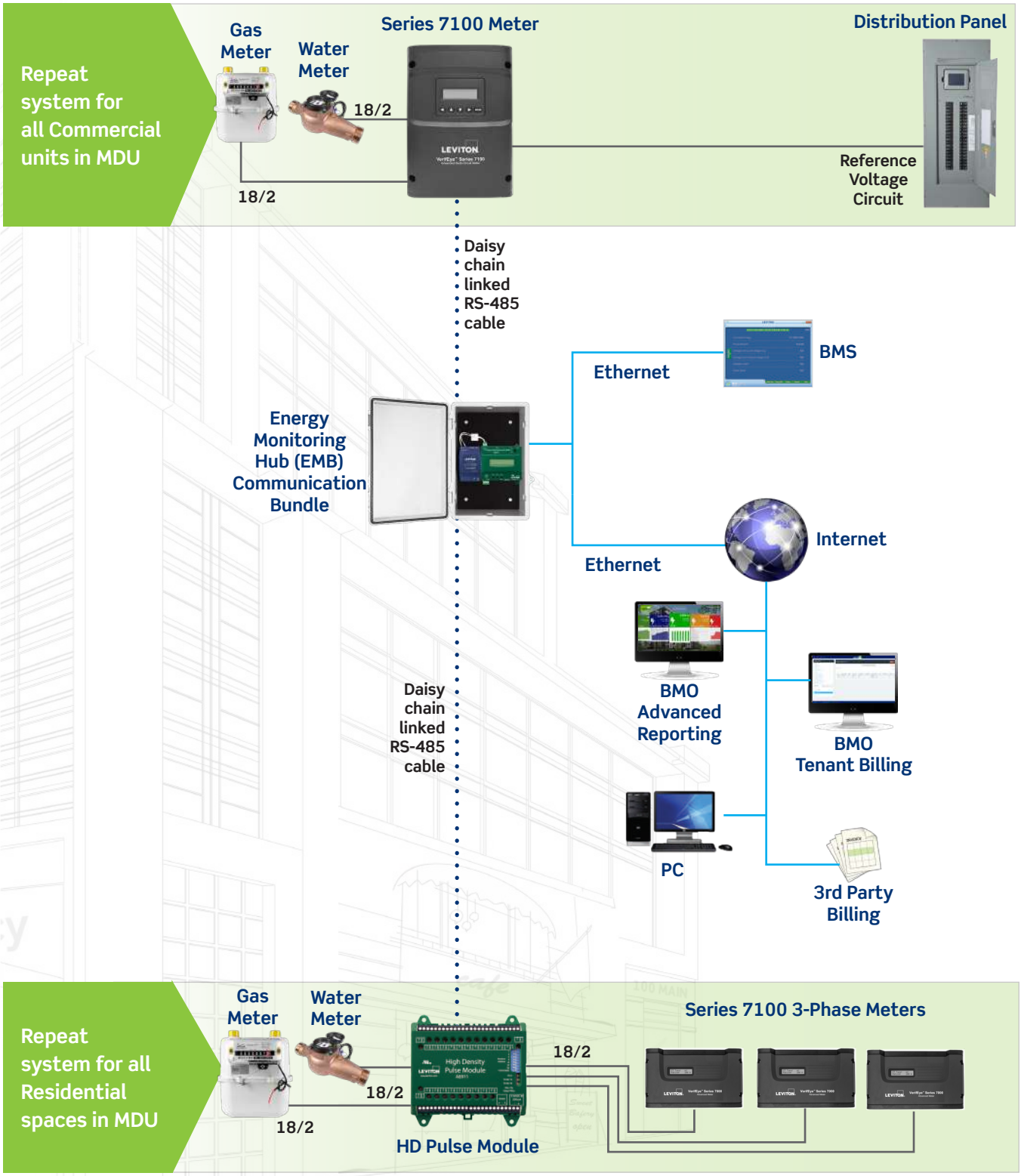



Series 7000
Multi Meter
Series 7000
Multi Meter
EMB Hub
PC
Switch/
Router
BMS
Internet
Cloud
BMO
Tenant
Billing
D Pulse
Module
Series 7000
3-Phase Meters

Commercial Offices/Mixed Use

New Construction & Retrofit Applications

PUTTING IT ALL TOGETHER



CORE LEVITON COMPONENTS

Commercial Offices/Mixed Use				
Product	**Voltage**	**Description**	**Amps**	**Cat. No.**
HD Pulse Module	—	HD Pulse Module, 23 inputs	—	A8911-023
Series 7100 Meter	—	Series 7100 Dual Voltage, Branch Circuit Monitor, 48 inputs, LCD display, NEMA 1 enclosure	—	71D48-000
Energy Monitoring Hub EMB	—	Energy Monitoring EMB Hub with line voltage power supply, NEMA 4X enclosure	—	A8810-PS1
Series 7100 3-Phase Meter	—	Series 7100 Advanced 3-Phase Meter (NEMA 1 Wall Mount Enclosure)	—	71D03-000
BMO Tenant Billing Module Software	—	BMO Tenant Billing Module Software	—	BMOTB-050
BMO Advanced Reporting Module Software	—	BMO Energy Management Software with Advanced Reporting	—	BMOAR-050

Note: These are examples of applications but should not be considered limitations to product and solution capability. Please contact your local Leviton representative for design assistance.











Retail Malls

New Construction & Retrofit Applications

Billing tenants for actual, measured usage on a regular basis and taking the uncertainty out of the equation makes sense for all parties. It improves cash flow, avoids end-of-year reconciliations and, in general, places responsibility for consumption where it belongs. But VerifEye submetering is more than just a tenant billing solution. All of our meters are designed to provide granular data on usage within specific areas or by individual loads that can be used to lower long-term energy usage.

PUTTING IT ALL TOGETHER
See pages 18-19

Submeters are a cost effective approach to tenant billing and energy management in a mall environment where space is routinely reconfigured to accommodate tenant turnover and planned improvements. That's because it is a cost-effective option that minimizes rewiring and disruption of retail operations during typical ongoing tenants' improvements.

Leviton VerifEye submetering features a range of devices that incorporate standard protocols, wireless options and split core CT technologies, making retrofits relatively easy and inexpensive. VerifEye submeters facilitate accurate tenant billing of electric, water, gas and other utility usage — and chargebacks for common area utilities.

The Leviton Advantage

- Redirect responsibility for utility usage from property owners to tenants for improved cash flow
- The VerifEye ModHopper Wireless Transceiver provides a self-optimizing wireless mesh network between multiple meters for a full submetering solution at a fraction of the traditional cost
- Eliminate the need for costly wiring with the VerifEye ModHopper Wireless Transceiver, which provides a self-optimizing wireless mesh network between multiple meters, for a full submetering solution
- Open architecture data collection offers freedom to utilize any third party billing company or VerifEye BMO Tenant Billing Module web-based software
- Integrate data and allocate costs from a variety of utilities including electric, gas, and water

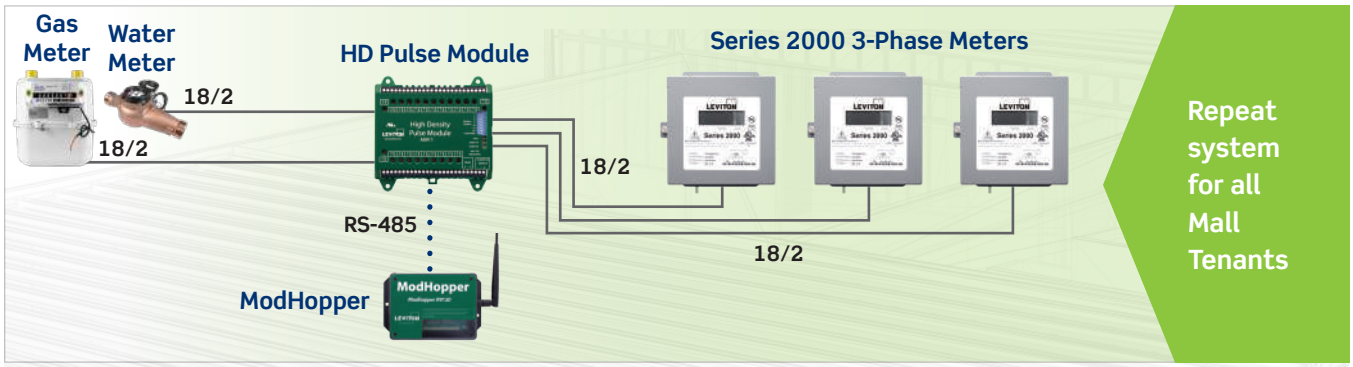


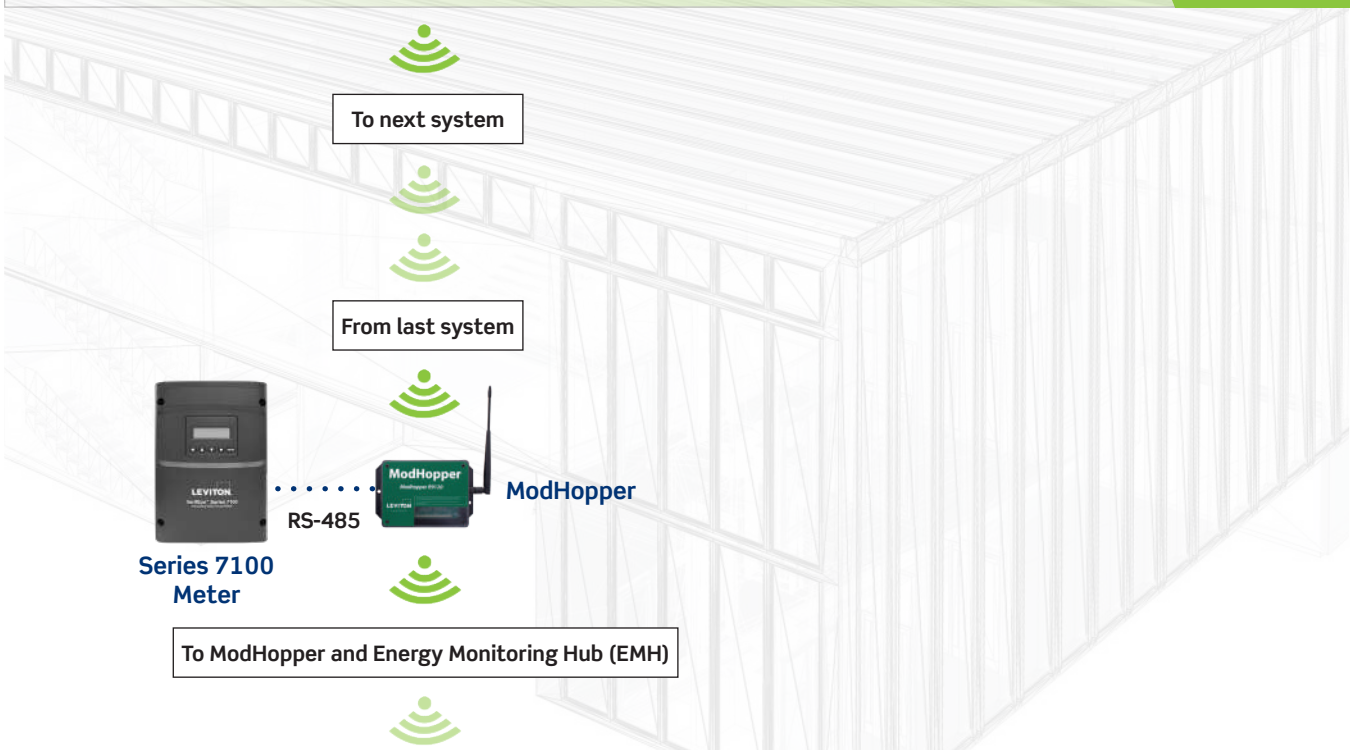

FASHION SHOP
BMS
Internet
BMO
Tenant Billing
Ethernet
Switch/
Router
Common
Area

Retail Malls

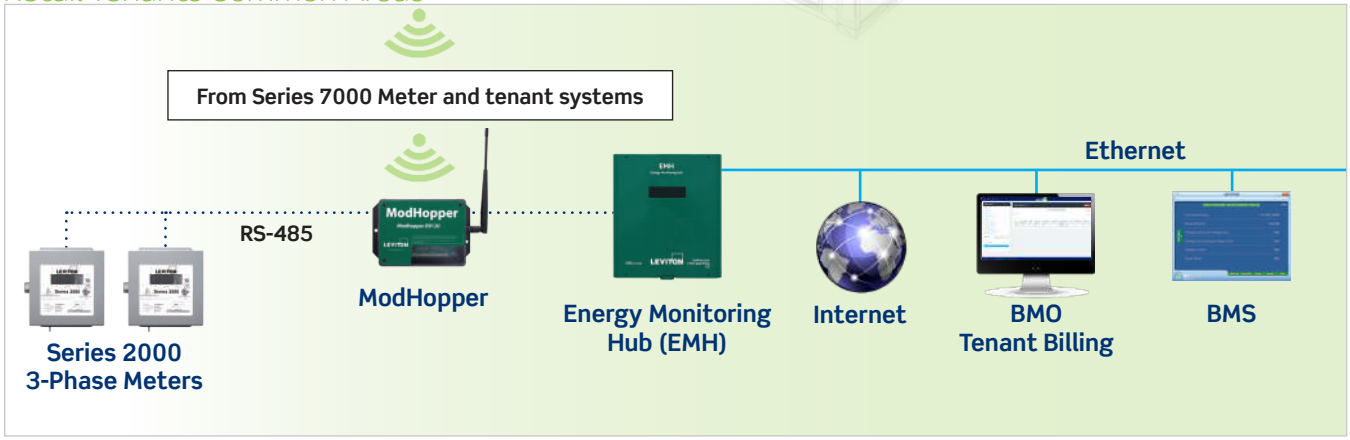
New Construction & Retrofit Applications

PUTTING IT ALL TOGETHER





Retail Tenants Common Areas



CORE LEVITON COMPONENTS

Retail Malls			
Product	**Voltage**	**Description**	**Cat. No.**
ModHopper	—	ModHopper	R9120-500
High Density Pulse Module	—	High Density Pulse Module, 23 Inputs	A8911-023
Series 2000 3-Phase Meter	—	Series 2000 3-Phase Meter	2K208-xxx
Series 7100 Meter	90-600VAC	Series 7100 Dual Voltage, Branch Circuit Monitor, 48 inputs, LCD display, NEMA 1 enclosure	71D48-000
Energy Monitoring Hub	—	Energy Monitoring Hub	A8812-000
BMO Tenant Billing Module Software	—	BMO Tenant Billing Module Software	BMOTB-050

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Educational and Professional Campuses

New Construction & Retrofit Applications

In the face of escalating utility costs, energy metering and monitoring provides a prime opportunity for substantial savings on college campuses. Modern educational facilities have become increasingly reliant on technology to improve the learning environment. Computers at every desk, sophisticated A/V equipment in every room, proliferation of personal mobile devices, etc.: all these devices and systems consume vast amounts of energy.

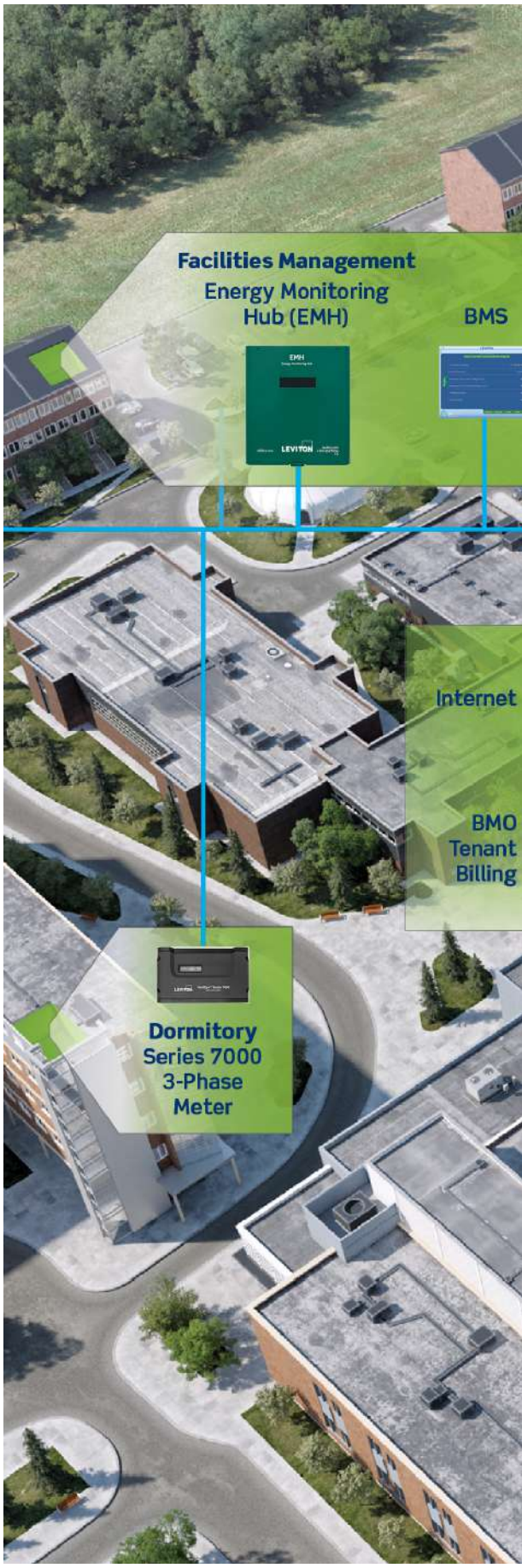
PUTTING IT ALL TOGETHER
See pages 22-23

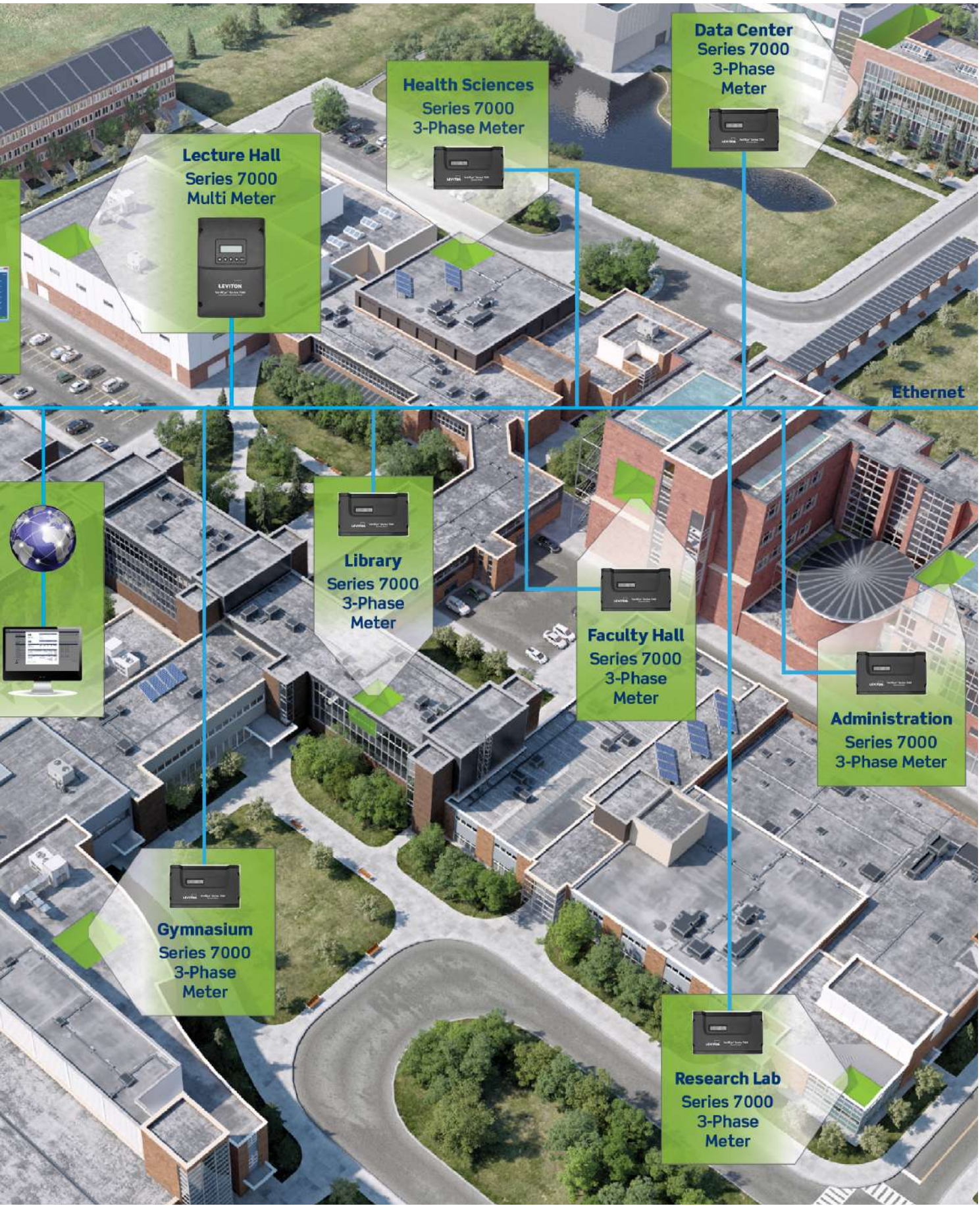
Installing a Leviton VerifEye submetering system provides visibility into downstream energy usage that can be used to improve energy efficiency and distribute costs equitably. Identifying and correcting system inefficiencies and equipment problems using data provided by submeters can result in significant savings. Submeters provide the required data for energy and facility managers to understand where to focus their time and money.

VerifEye provides the right products to allow energy submetering from the whole building down to individual branch circuits on a single platform campus wide. Collected data can be sent to multiple stakeholders including energy monitoring software, EMS/BMS, dorm competition dashboards, ESCOs, etc.

The Leviton Advantage

- Clear visibility into downstream energy data facilitates departmental cost allocation and aids in forecasting future energy needs
- Integration of multiple utilities (electric, water, gas and steam) into single data collection platform with open protocol data access
- Broad line of metering products and communication architecture platforms to suit a wide variety of environments
- Highly scalable system can be phased in to accommodate resource constraints and ease adoption
- Cost-effective and convenient method of monitoring usage for energy savings, code compliance and LEED measurement and verification

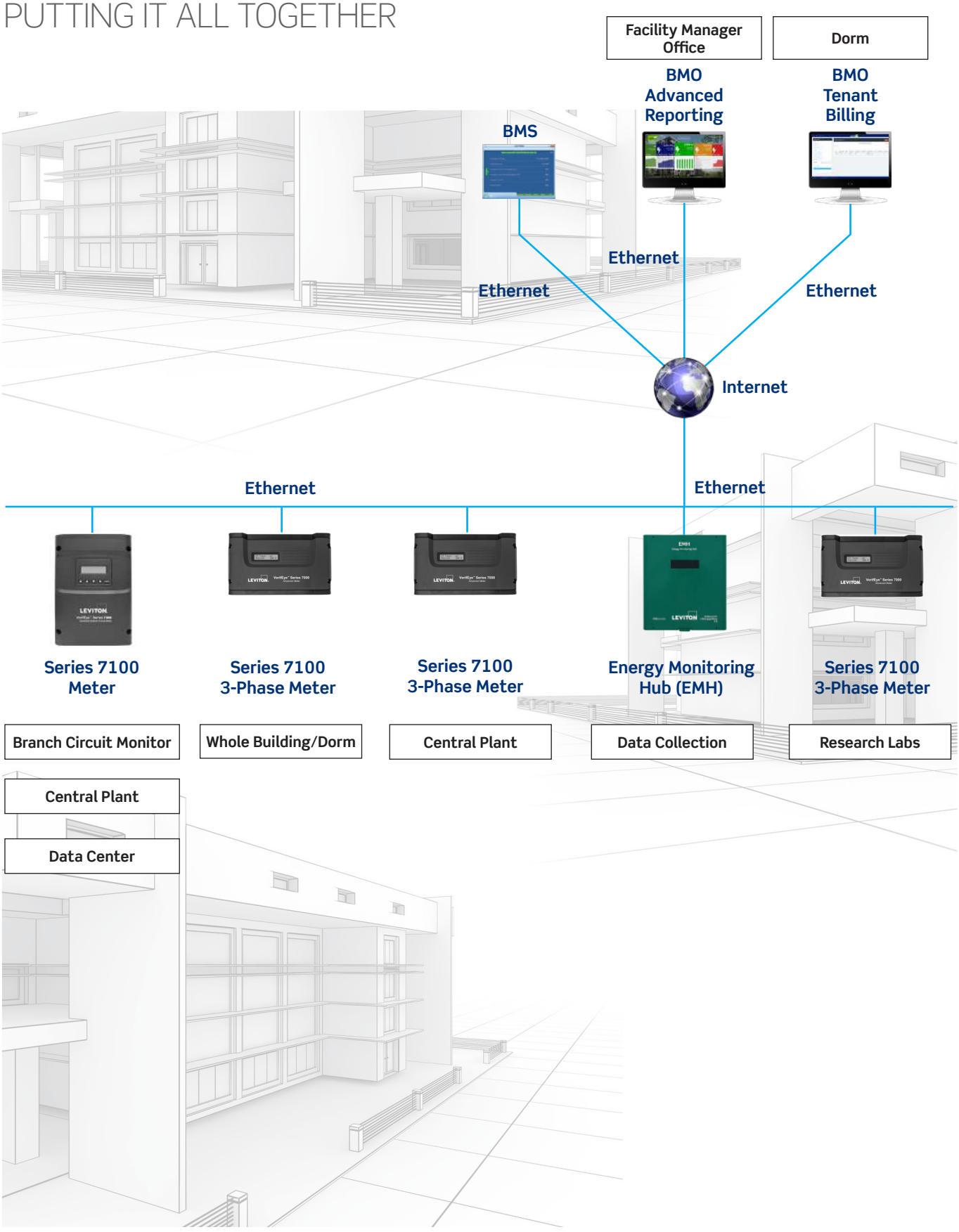



Data Center
Series 7000
3-Phase
Meter
Health Sciences
Series 7000
3-Phase Meter
Lecture Hall
Series 7000
Multi Meter
Ethernet
Library
Series 7000
3-Phase
Meter
Faculty Hall
Series 7000
3-Phase
Meter
Administration
Series 7000
3-Phase Meter
Gymnasium
Series 7000
3-Phase
Meter
Research Lab
Series 7000
3-Phase
Meter

Educational and Professional Campuses

New Construction & Retrofit Applications

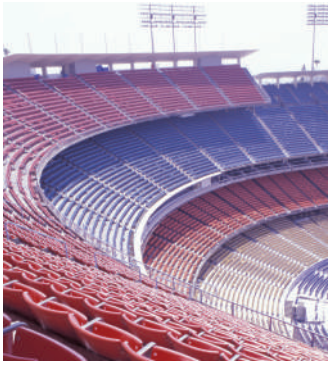
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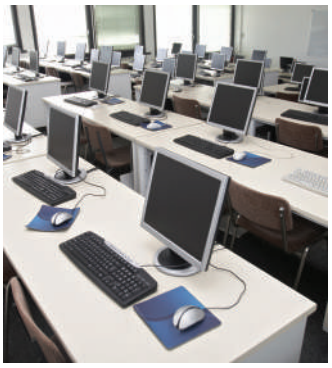


CORE LEVITON COMPONENTS

Educational and Professional Campuses			
Product	**Voltage**	**Description**	**Cat. No.**
BMO Tenant Billing Module Software	—	BMO Tenant Billing Software	BMOTB-050
BMO Advanced Reporting Module Software	—	BMO Advanced Reporting Module Software	BMOAR-050
Suggested Meters for Individual Buildings			
Low Range — Gymnasium, Faculty Hall			
Series 7100 3-Phase Meter	90-600VAC	Series 7100 Advanced 3-Phase Meter (NEMA 1 Wall Mount Enclosure)	71D03-000
Mid Range — Administration, Dormitory, Health Sciences, Library			
Series 7100 3-Phase Meter	90-600VAC	Series 7100 Advanced 3-Phase Meter (NEMA 1 Wall Mount Enclosure)	71D03-000
High Range — Data Center. Research Lab			
Series 7100 3-Phase Meter	90-600VAC	Series 7100 Advanced 3-Phase Meter (NEMA 1 Wall Mount Enclosure)	71D03-000
Facilities Management			
Energy Monitoring Hub	—	Energy Monitoring Hub - Non-Configured	A8812-000
Lecture Hall			
Series 7100 Meter	90-600VAC	Series 7100 Dual Voltage, Branch Circuit Monitor, 48 inputs, LCD display, NEMA 1 enclosure	70D48-000

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Industrial/ Manufacturing Plants, Major Building Systems

New Construction and Retrofit Applications

It takes a tremendous amount of energy to run manufacturing process equipment, lighting and HVAC systems within a typical plant. As major consumers of electricity and other utilities, factories and industrial facilities can achieve significant cost savings by improving equipment performance, by load shifting, and by eliminating wasteful consumption. In addition, accurate allocation of utility costs made possible through submetering can enhance management of per-unit production costs. Energy monitoring data can facilitate a robust energy management and improvement plan that if utilized properly, will provide significant savings opportunities.

PUTTING IT ALL TOGETHER
See pages 26-27

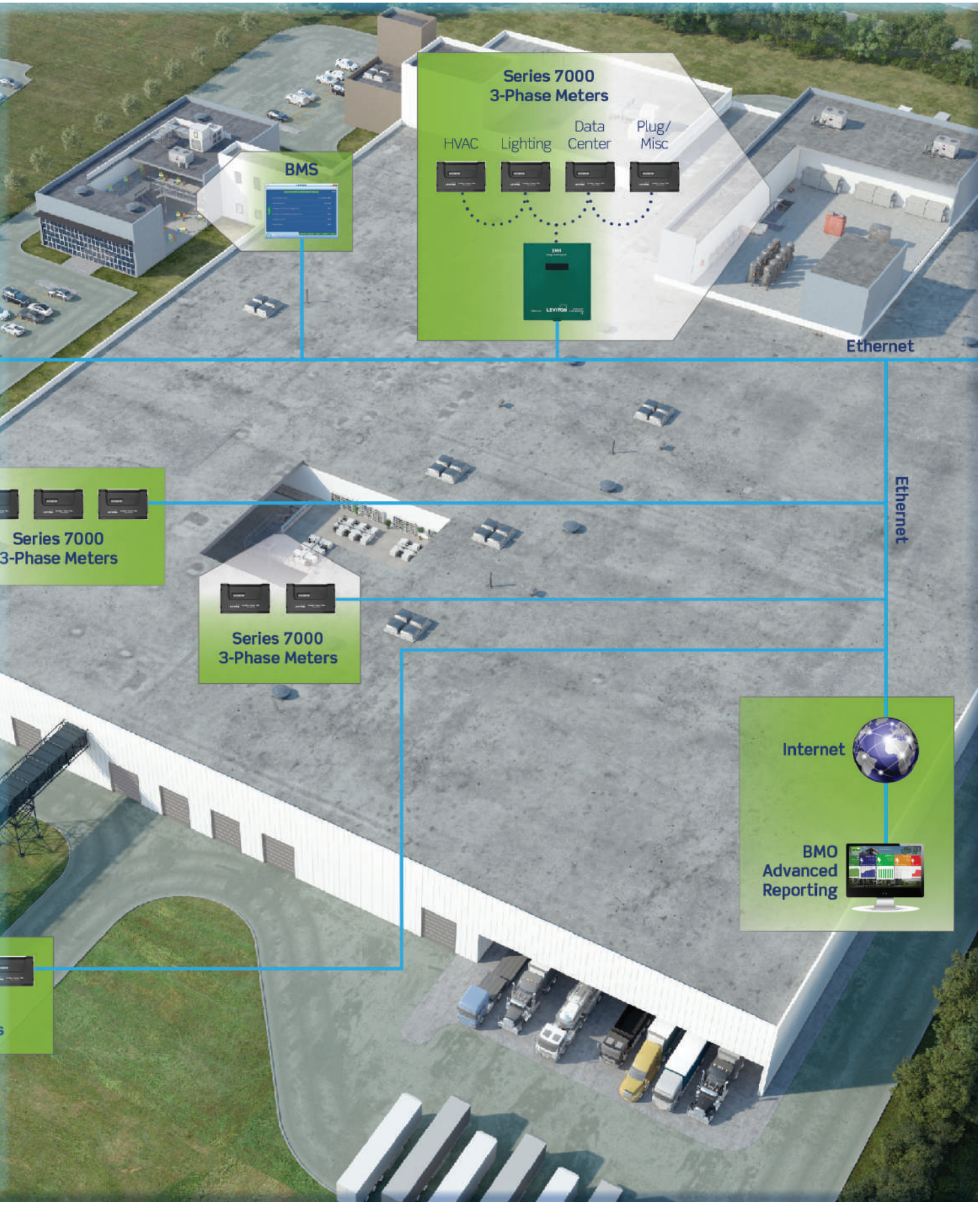
In an environment where downtime can quickly erode profits, a submetering system that can be phased in without interrupting processing or production has measurable advantages. Leviton's VerifEye submetering system is extremely scalable so it can be installed in phases, while use of split core transformers enables installation without power interruptions. Once in action, submetering provides facility managers and operators with valuable insight into the performance of the overall facility.

Leviton's VerifEye submetering system can help streamline demand analysis, production and administrative cost allocation, and equipment maintenance opportunities. The end result is a better bottom line.

The Leviton Advantage

- Highly scalable system can be phased in so as not to interrupt daily operations
- Monitoring of processes, equipment and major building system loads for energy savings
- Ideal solution for departmental cost allocation
- Easy integration of utility data into building and energy management systems
- Versatile metering products accommodate split core transformers or Rogowski Coil CTs for relatively easy retrofitting into any environment

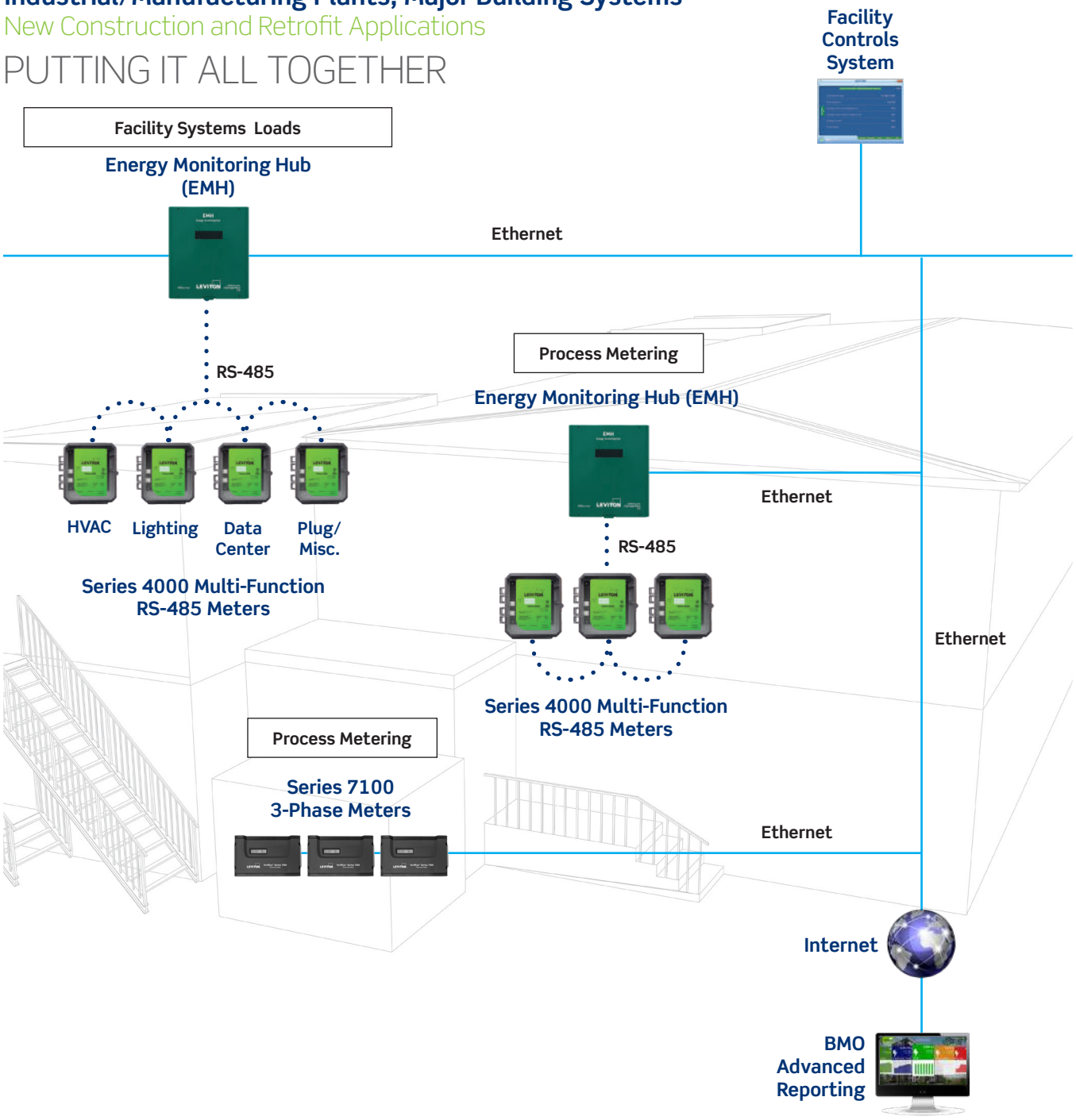



Series 7000
3-Phase Meters
HVAC
Lighting
Data Center
Plug/ Misc
BMS
Ethernet
Series 7000
3-Phase Meters
Ethernet
Series 7000
3-Phase Meters
Internet
BMO
Advanced
Reporting

Industrial/Manufacturing Plants, Major Building Systems

New Construction and Retrofit Applications

PUTTING IT ALL TOGETHER



CORE LEVITON COMPONENTS

Industrial/Manufacturing Plants, Major Building Systems			
Product	**Voltage**	**Description**	**Cat. No.**
Series 4000 Modbus RTU	Universal 3P 3W/4W	100A, 3 Split Core CTs	4KUMR-01M
		200A, 3 Split Core CTs	4KUMR-02M
		400A, 3 Split Core CTs	4KUMR-04M
		800A, 3 Split Core CTs	4KUMR-08M
		20-5000A, 3, 12" Rogowski Coil CTs	4KU MR-R12
		20-5000A, 3, 18" Rogowski Coil CTs	4KUMR-R18
		20-5000A, 3, 24" Rogowski Coil CTs	4KUMR-R24
Series 7100 3-Phase Meters	90-600VAC	Series 7100 Advanced 3-Phase Meter (NEMA 1 Wall Mount Enclosure)	71D03-000
Energy Monitoring Hub	—	Energy Monitoring Hub	A8812-000
BMO Advanced Reporting Module Software	—	BMO Energy Management Software with Advanced Reporting	BMOAR-050

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VERIFEYE METERS



Mini Meter MMU



Mini Meter Flush Mount



Mini Meter Kits with AMR

Multi-Family Residential		
Specifications	**Mini Meter™ Kits**	**Mini Meter Kits with AMR**
	kWh Meter	
Phase/Wiring	1PH/3W and Split Phase	
Voltage Configurations	120/208/240	
Amperages	100-200A	200A
Measuring Parameters	kWh	
Communications Protocol (Standard)	Isolated Pulse Output	Embedded wireless transmitter
Current Transformers Options	Split Core Solid Core	Solid Core
Enclosure Options	**OEM Module** **Indoor** Plastic Flush Mount NEMA 1 **Outdoor** NEMA 4X **MMU** NEMA 4X	**Indoor** Flush Mount **Indoor** Surface Mount
Display Type	LCD	LCD
Accuracy	C12.10 +/- 0.5% with paired CTs	C12.20 / 0.5% with paired CTs
Multiple Meter Unit (MMU) Configurations	Medium, 2-4 Meters Large, 5-8 Meters Extra-Large, 9-20 Meters	-
Data Storage	Last Reading - Cumulative	

*With potential transformer — consult factor for availability



Series 8000



Series 7000, 7100



Series 7200, 7300

	Residential/Commercial		
Specifications	**Series 8000 High Density Multi-Circuit Meter**	**Series 7000 and 7100 Advanced Branch Circuit Monitor, Advanced 3-Phase Meters**	**Series 7200 and 7300 Virtual Element Advanced Branch Circuit Monitors**
	kWh Meter		**kWh Meter with Demand**
Phase/Wiring	1PH 2W 1PH 3W WYE 3PH 3W Delta 3PH 4W WYE	1P/2W 2P/3W 3P/4W 3P/3W Delta	1P/2W 2P/3W 3P/4W (WYE) 3P/3W (Delta)
Voltage Configurations	120/208 120/240 277/480 480*	90-347 Volts AC Line-to-Neutral, 600V Line-to-Line	90-347 Volts AC Line-to-Neutral 600V Line-to-Line, CAT III One voltage reference input
Amperages	100-5000A	50-4000A	
Measuring Parameters	kWh Delivered and Received kVarh Delivered and Received VAR PF Peak Demand Present Demand Volts Amps Watts	Volts, Amps, kW, kVAR, kVA, aPF, dPF, kW demand, kVA demand, Import (Received), kWh, Export (Delivered), kWh, Net kWh, Import(Received) kVAh, Export (Delivered) kVAh, Net KVAh, Import (Received),kVARh, Export (Delivered), kVARh, Net kVARh, THD Theta, Frequency	Volts kW aPF kWh All parameters for each phase and system total
Communications Protocol (Standard)	Modbus TCP Modbus RTU (RS-485) BACnet IP Ethernet	Modbus RTU Modbus TCP BACnet MS/TP BACnet IP Integrated USB port may be used for local configuration	Modbus RTU Modbus TCP BACnet MS/TP BACnet IP Integrated USB port may be used for local configuration
Current Transformers Options	Split Core Solid Core	Split Core Solid Core Rogowski Coil	Split Core Solid Core Rogowski Coil
Enclosure Options	**Indoor** JIC Steel NEMA1	**Indoor** Plastic NEMA 1, or Embedded Panel Mount — no enclosure	
Display Type	Local LCD, Scroll	Local LCD, Scroll Buttons	
Accuracy	C12.20 +/- 0.5%	C12.20 / 0.2%	
Multiple Meter Unit (MMU) Configurations	3PH: 4x3 1PH 3W: 12x2, 9x2, 6x2, 3x2 1PH: 12x1	**Single 3-Phase Meters:** 3PH, 2PH, 1PH: x1 **12 Inputs Configurable:** 3PH: 4 x 3 2PH: 4 X 2 1PH: 12 X 1 **24 Inputs Configurable:** 3PH: 8x3 / 2PH 8x2 1PH: 24x1 **48 Inputs Configurable:** 3PH: 16x3 / 2PH: 16x2 1PH: 48x1	48 Inputs Configurable: Up to 24 virtual meters configured in any combination of 1-pole, 2-pole or 3-pole loads
Data Storage	Last Reading - Cumulative Data in 15 min Intervals	Last Reading — User Selectable	

VERIFEYE METERS


Series 1000 Indoor


Series 1000 Outdoor


Series 2000 Indoor


Series 2000 Outdoor

Commercial and Industrial			
	Series 1000 Single Phase Meter Kits		**Series 2000 Three Phase Meter Kits**
	kWh Meter with Demand		
Phase/Wiring	1PH 2W	1PH 3W	3PH 4W WYE
Voltage Configurations	120 277	120/208 120/240 277/480	120/208 277/480
Amperages	100-800A		100-1200A 100, 200, 400, 800, 1200
Measuring Parameters	kWh Demand-Peak and Current (Standard on S2000, Optional on all others)		
Communications Protocol (Standard)	Isolated Pulse Output, 10WH or 1000WH Pulse		
Current Transformers Options	Split Core Solid Core		
Enclosure Options	**Indoor** JIC Steel NEMA 1 **Outdoor** NEMA 4X		
Display Type	Local LCD		
Accuracy	C12.10 and C12.20 +/- 0.5%		
Data Storage	Last Reading Peak Demand and Instantaneous Demand-Standard on S2000 Indoor Kits		



Series 4000 and 4100 Indoor



Series 4000 and 4100 Outdoor



Series 6000

	Commercial and Industrial		Panel/PQ
	Series 4000 Industrial Modbus Meter Kits	**Series 4100 Industrial Modbus RTU Bidirectional Meter Kits**	**Series 6000 Industrial Panel Mount Meter**
	kWh Meter		**Advanced kWh Meter with Communication**
Phase/Wiring	3PH 3W/4W WYE/Delta		Universal 3PH 3W/4W
Voltage Configurations	Universal Voltage (90-600) L-N Voltage 347VAC		50-300V L-N 87-520V L-L
Amperages	Split Core: 100, 200, 400, 800A Rogowski: 50-5000A		Split Core: 0.5A-720A Rogowski: 12-7200A
Measuring Parameters	**Series 4000:** kVARh, kW, kVAR, kVA, Voltage L-L, L-N, Current, Power Factor, Frequency **Series 4100:** kW, kVA and kVAR Power factor: 3 phase average & per phase Present power demand: Real (kW), reactive (kVAR) and apparent (kVA) Parameters are both delivered and received for the S4100 Meter		kWh, kvarh, kVAh Powers: P1, P2, P3, P, Q1, Q2, Q3, Q, S1, S2, S3, ΣS Predictive powers: ΣP, ΣQ, ΣS Power factor: PF1, PF2, PF3, ΣPF, Cos ϕ & tangent ϕ
Communications Protocol (Standard)	Modbus/RTU	Modbus/RTU w/Pulse Output or BACnet MS/TP with Pulse Input	Modbus RTU BACnet IP
Current Transformers Options	Split Core .333V secondary output only Rogowski Coil: lengths available in 12", 18" and 24"		Series 6000 Split Core CT Series 6000 Rogowski CT
Enclosure Options	**Indoor** DIN Rail Mount **Outdoor** NEMA 4X		Panel Mount with NEMA 4X Enclosure
Display Type	LCD, Scroll Buttons		LCD, 10 button touch screen interfa
Accuracy	C12.20 / 0.2%		Meter: 0.2 CLASS
Data Storage	Last Reading - Present and Peak Demand for kW and kVAR		Energy - 1 year Power monitoring - 2 months

MINI METER™ KITS

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
- 120/208V 1PH/3W and Split Phase 120/240V
- 100-200 Amps
- Pulse Output - standard feature
- Available in indoor flush mount and surface mount enclosures and NEMA 4X outdoor individual meter enclosures
- Select surface mount and flush mount 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 solid core CTs to achieve 0.5% accuracy — also available with split 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



Mini Meter Kit



Mini Meter with
Transceiver

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
120/208/240V 1PH 3W	200A		MK240-2SW

MINI METER KITS - INDOOR SURFACE MOUNT ENCLOSURE

VOLTAGE	AMPS	CTS INCLUDED	CAT. NO.
120/240 1PH/3W Split Phase,120/208 2PH/3W	200A	2 SOLID CTs	6PSMT-C02

MINI METER KITS - LCD MODEL METER (NO ENCLOSURE)

VOLTAGE	AMPS	CTS INCLUDED	CAT. NO.
DUAL ELEMENT MINI METER			
120/240 1PH/3W Split Phase, 120/208 2PH/3W 0.1kWh	100A	2 Solid CTs	MDNCT-1SC
	100A	2 Split CTs	MDNCT-1SP
	200A	2 Solid CTs	MDNCT-2SC
	200A	2 Split CTs	MDNCT-2SP
120/240 1PH/3W Split Phase, 120/208 2PH/3W 1kWh	100A	2 Solid CTs	MDTCT-1SC
	100A	2 Split CTs	MDTCT-1SP
	200A	2 Solid CTs	MDTCT-2SC
	200A	2 Split CTs	MDTCT-2SP

NOTE: All kits include meter and Current Transformers (CTs)

DUAL ELEMENT MINI METER KITS – WITH INTEGRATED WIRELESS AMR*

VOLTAGE	AMPS	CTS INCLUDED	CAT. NO.
DUAL ELEMENT MINI METER			
Flush Mount 120/240 1PH/3W Split Phase, 120/208 2PH/3W (includes Time of Use (TOU**) enabled kWh Wireless AMR Transceiver)	200A	2 Solid CTs	MDTFW-2SC
Surface Mount 120/240 1PH/3W Split Phase, 120/208 2PH/3W (includes Time of Use (TOU**) enabled kWh Wireless AMR Transceiver	200A	2 Solid CTs	MDTSW-2SC

NOTE: All kits include meter, specified enclosure and Current Transformers (CTs).

*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

MINI METER MULTIPLE METER UNITS (MMU)

MINI METER MMU BASIC METERS—WITH TERMINALS ONLY

DESCRIPTION	CAT. NO.
Mini Meter MMU - Medium Enclosure, 2 Meters with Terminals Only	MMT02-2T0
Mini Meter MMU - Medium Enclosure, 3 Meters with Terminals Only	MMT03-2T0
Mini Meter MMU - Medium Enclosure, 4 Meters with Terminals Only	MMT04-2T0
Mini Meter MMU - Large Enclosure, 5 Meters with Terminals Only	MLT05-2T0
Mini Meter MMU - Large Enclosure, 6 Meters with Terminals Only	MLT06-2T0
Mini Meter MMU - Large Enclosure, 7 Meters with Terminals Only	MLT07-2T0
Mini Meter MMU - Large Enclosure, 8 Meters with Terminals Only	MLT08-2T0
Mini Meter MMU - XL Enclosure, 9 Meters with Terminals Only	MXT09-2T0
Mini Meter MMU - XL Enclosure, 10 Meters with Terminals Only	MXT10-2T0
Mini Meter MMU - XL Enclosure, 11 Meters with Terminals Only	MXT11-2T0
Mini Meter MMU - XL Enclosure, 12 Meters with Terminals Only	MXT12-2T0
Mini Meter MMU - XL Enclosure, 13 Meters with Terminals Only	MXT13-2T0
Mini Meter MMU - XL Enclosure, 14 Meters with Terminals Only	MXT14-2T0
Mini Meter MMU - XL Enclosure, 15 Meters with Terminals Only	MXT15-2T0
Mini Meter MMU - XL Enclosure, 16 Meters with Terminals Only	MXT16-2T0
Mini Meter MMU - XL Enclosure, 17 Meters with Terminals Only	MXT17-2T0
Mini Meter MMU - XL Enclosure, 18 Meters with Terminals Only	MXT18-2T0
Mini Meter MMU - XL Enclosure, 19 Meters with Terminals Only	MXT19-2T0
Mini Meter MMU - XL Enclosure, 20 Meters with Terminals Only	MXT20-2T0



Medium Enclosure

MINI METER MMU— WITH INTEGRATED HIGH DENSITY PULSE MODULE (HDPM)

DESCRIPTION	CAT. NO.
Mini Meter MMU - Medium Enclosure, 2 Meters with Integrated HDPM	MMT02-2H0
Mini Meter MMU - Medium Enclosure, 3 Meters with Integrated HDPM	MMT03-2H0
Mini Meter MMU - Medium Enclosure, 4 Meters with Integrated HDPM	MMT04-2H0
Mini Meter MMU - Large Enclosure, 5 Meters with Integrated HDPM	MLT05-2H0
Mini Meter MMU - Large Enclosure, 6 Meters with Integrated HDPM	MLT06-2H0
Mini Meter MMU -Large Enclosure, 7 Meters with Integrated HDPM	MLT07-2H0
Mini Meter MMU - Large Enclosure, 8 Meters with Integrated HDPM	MLT08-2H0
Mini Meter MMU - XL Enclosure, 9 Meters with Integrated HDPM	MXT09-2H0
Mini Meter MMU - XL Enclosure, 10 Meters with Integrated HDPM	MXT10-2H0
Mini Meter MMU - XL Enclosure, 11 Meters with Integrated HDPM	MXT11-2H0
Mini Meter MMU - XL Enclosure, 12 Meters with Integrated HDPM	MXT12-2H0
Mini Meter MMU - XL Enclosure, 13 Meters with Integrated HDPM	MXT13-2H0
Mini Meter MMU - XL Enclosure, 14 Meters with Integrated HDPM	MXT14-2H0
Mini Meter MMU - XL Enclosure, 15 Meters with Integrated HDPM	MXT15-2H0
Mini Meter MMU - XL Enclosure, 16 Meters with Integrated HDPM	MXT16-2H0
Mini Meter MMU - XL Enclosure, 17 Meters with Integrated HDPM	MXT17-2H0
Mini Meter MMU - XL Enclosure, 18 Meters with Integrated HDPM	MXT18-2H0
Mini Meter MMU - XL Enclosure, 19 Meters with Integrated HDPM	MXT19-2H0
Mini Meter MMU - XL Enclosure, 20 Meters with Integrated HDPM	MXT20-2H0



Large Enclosure



Extra Large Enclosure

MINI METER MULTIPLE METER UNITS (MMU)

MINI METER MMU— WITH INTEGRATED HIGH DENSITY PULSE MODULE (HDPM) + MODHOPPER (MH) WIRELESS TRANSCEIVER

DESCRIPTION	CAT. NO.
Mini Meter MMU - Large Enclosure, 5 Meters with Integrated HDPM+MH	MLT05-2W0
Mini Meter MMU - Large Enclosure, 6 Meters with Integrated HDPM+MH	MLT06-2W0
Mini Meter MMU - Large Enclosure, 7 Meters with Integrated HDPM+MH	MLT07-2W0
Mini Meter MMU - Large Enclosure, 8 Meters with Integrated HDPM+MH	MLT08-2W0
Mini Meter MMU - XL Enclosure, 9 Meters with Integrated HDPM+MH	MXT09-2W0
Mini Meter MMU - XL Enclosure, 10 Meters with Integrated HDPM+MH	MXT10-2W0
Mini Meter MMU - XL Enclosure, 11 Meters with Integrated HDPM+MH	MXT11-2W0
Mini Meter MMU - XL Enclosure, 12 Meters with Integrated HDPM+MH	MXT12-2W0
Mini Meter MMU - XL Enclosure, 13 Meters with Integrated HDPM+MH	MXT13-2W0
Mini Meter MMU - XL Enclosure, 14 Meters with Integrated HDPM+MH	MXT14-2W0
Mini Meter MMU - XL Enclosure, 15 Meters with Integrated HDPM+MH	MXT15-2W0
Mini Meter MMU - XL Enclosure, 16 Meters with Integrated HDPM+MH	MXT16-2W0
Mini Meter MMU - XL Enclosure, 17 Meters with Integrated HDPM+MH	MXT17-2W0
Mini Meter MMU - XL Enclosure, 18 Meters with Integrated HDPM+MH	MXT18-2W0
Mini Meter MMU - XL Enclosure, 19 Meters with Integrated HDPM+MH	MXT19-2W0
Mini Meter MMU - XL Enclosure, 20 Meters with Integrated HDPM+MH	MXT20-2W0

MINI METER MMU— WITH INTEGRATED HIGH DENSITY PULSE MODULE (HDPM) + DATA ACQUISITION SERVER (DAS)

DESCRIPTION	CAT. NO.
Mini Meter MMU - Medium Enclosure, 2 Meters with Integrated A7810 DAS with pulse inputs	MMT02-20A
Mini Meter MMU - Medium Enclosure, 3 Meters with Integrated A7810 DAS with pulse inputs	MMT03-20A
Mini Meter MMU - Medium Enclosure, 4 Meters with Integrated A7810 DAS with pulse inputs	MMT04-20A
Mini Meter MMU - Large Enclosure, 5 Meters with Integrated HDPM+ A8810 DAS	MLT05-2HB
Mini Meter MMU - Large Enclosure, 6 Meters with Integrated HDPM+ A8810 DAS	MLT06-2HB
Mini Meter MMU - Large Enclosure, 7 Meters with Integrated HDPM+ A8810 DAS	MLT07-2HB
Mini Meter MMU - Large Enclosure, 8 Meters with Integrated HDPM+ A8810 DAS	MLT08-2HB
Mini Meter MMU - XL Enclosure, 9 Meters with Integrated HDPM+ A8810 DAS	MXT09-2HB
Mini Meter MMU - XL Enclosure, 10 Meters with Integrated HDPM+ A8810 DAS	MXT10-2HB
Mini Meter MMU - XL Enclosure, 11 Meters with Integrated HDPM+ A8810 DAS	MXT11-2HB
Mini Meter MMU - XL Enclosure, 12 Meters with Integrated HDPM+ A8810 DAS	MXT12-2HB
Mini Meter MMU - XL Enclosure, 13 Meters with Integrated HDPM+ A8810 DAS	MXT13-2HB
Mini Meter MMU - XL Enclosure, 14 Meters with Integrated HDPM+ A8810 DAS	MXT14-2HB
Mini Meter MMU - XL Enclosure, 15 Meters with Integrated HDPM+ A8810 DAS	MXT15-2HB
Mini Meter MMU - XL Enclosure, 16 Meters with Integrated HDPM+ A8810 DAS	MXT16-2HB
Mini Meter MMU - XL Enclosure, 17 Meters with Integrated HDPM+ A8810 DAS	MXT17-2HB
Mini Meter MMU - XL Enclosure, 18 Meters with Integrated HDPM+ A8810 DAS	MXT18-2HB
Mini Meter MMU - XL Enclosure, 19 Meters with Integrated HDPM+ A8810 DAS	MXT19-2HB
Mini Meter MMU - XL Enclosure, 20 Meters with Integrated HDPM+ A8810 DAS	MXT20-2HB

MINI METER MULTIPLE METER UNITS (MMU)

MINI METER MMU— WITH INTEGRATED HIGH DENSITY PULSE MODULE (HDPM) + DATA ACQUISITION SERVER (DAS) +

DESCRIPTION	CAT. NO.
Mini Meter MMU - Large Enclosure, 5 Meters with Integrated HDPM+ A8810 DAS+MH	MLT05-2WB
Mini Meter MMU - Large Enclosure, 6 Meters with Integrated HDPM+ A8810 DAS+MH	MLT06-2WB
Mini Meter MMU - Large Enclosure, 7 Meters with Integrated HDPM+ A8810 DAS+MH	MLT07-2WB
Mini Meter MMU - Large Enclosure, 8 Meters with Integrated HDPM+ A8810 DAS+MH	MLT08-2WB
Mini Meter MMU - XL Enclosure, 9 Meters with Integrated HDPM+ A8810 DAS+MH	MXT09-2WB
Mini Meter MMU - XL Enclosure, 10 Meters with Integrated HDPM+ A8810 DAS+MH	MXT10-2WB
Mini Meter MMU - XL Enclosure, 11 Meters with Integrated HDPM+ A8810 DAS+MH	MXT11-2WB
Mini Meter MMU - XL Enclosure, 12 Meters with Integrated HDPM+ A8810 DAS+MH	MXT12-2WB
Mini Meter MMU - XL Enclosure, 13 Meters with Integrated HDPM+ A8810 DAS+MH	MXT13-2WB
Mini Meter MMU - XL Enclosure, 14 Meters with Integrated HDPM+ A8810 DAS+MH	MXT14-2WB
Mini Meter MMU - XL Enclosure, 15 Meters with Integrated HDPM+ A8810 DAS+MH	MXT15-2WB
Mini Meter MMU - XL Enclosure, 16 Meters with Integrated HDPM+ A8810 DAS+MH	MXT16-2WB
Mini Meter MMU - XL Enclosure, 17 Meters with Integrated HDPM+ A8810 DAS+MH	MXT17-2WB
Mini Meter MMU - XL Enclosure, 18 Meters with Integrated HDPM+ A8810 DAS+MH	MXT18-2WB
Mini Meter MMU - XL Enclosure, 19 Meters with Integrated HDPM+ A8810 DAS+MH	MXT19-2WB
Mini Meter MMU - XL Enclosure, 20 Meters with Integrated HDPM+ A8810 DAS+MH	MXT20-2WB



MLT08-2HB

SERIES 8000 MULTI-POINT HIGH DENSITY METERS

For both retrofit and new construction, Leviton VerifEye™ Multiple Meter Units (MMUs) are fast and easy to install. These units come in 3 standard sizes with options for integrated High Density Pulse Modules, ModHopper wireless transceivers, and even a data acquisition server. They are assembled in NEMA 4X enclosures with clear covers, allowing the meters to be read through the front panel.

- Allows for revenue grade metering of up to 24 individual circuits in one device
- Monitors up to 24 current transformers:
  - 8 circuits, 3 phase loads
  - 12 circuits, 2 phase loads
  - 24 circuits, 1 phase loads
- 100-5,000 Amp current transformers
- Native communications protocol—Modbus TCP, Modbus RTU (RS-485) and BACnet IP standard
- Measures kW hours, kW demand, volts, amps
- Interval and net metering
- Two onboard pulse channels available for co-located meters with contact closures
- This platform is both CA Type and NYPSC Approved



Series 8000 Meter

SERIES 8000 MULTI-POINT HIGH DENSITY METERS

MULTI-FAMILY RESIDENTIAL

VOLTAGE	DESCRIPTION	CAT. NO.
120/208/240V	Phase Config 4x3 Meters with Wiring Harness (3 CTs ea)*	S8112-C04
	Phase Config 6x2 Meters with Wiring Harness (2 CTs ea)*	S8112-C06
	Phase Config 12x1 Meters with Wiring Harness (1 CT ea)*	S8112-C12
	Phase Config 8x3 Meters with Wiring Harness (3 CTs ea)*	S8124-C08
	Phase Config 2x2 Meters with Wiring Harness (2 CTs ea)*	S8124-C12
	Phase Config 24x 1 Meters with Wiring Harness (1 CT ea)*	S8124-C24
120/208/240V	8x3, 12x2, 24x1 with Terminal Strips	S8UTS-241

COMMERCIAL & INDUSTRIAL

277/480V	Phase Config with 8x3, 12x2, 24x1 with Terminal Strips	S277TS-241
	Phase Config 8x3 with Wiring Harness	277WH-241
	Phase Config with 8x3, 12x2, 24x1 with Wiring Harness	

*Approved for California Weights & Measures

SERIES 7000 AND 7100 ADVANCED BRANCH CIRCUIT MONITORS

The VerifEye™ Series 7000 and 7100 Advanced Branch Circuit Monitors are cost-effective solutions for electrical load management. The Series 7000 and 7100 platforms are ideal for high density, branch circuit monitoring applications in both new construction and retrofit applications. The Series 7000 and 7100 monitors up to 48 branch circuits with one single meter board.

- 24/48 Unit versions configurable as follows:
  - 24/48 Single Pole Meters -or-
  - 8/16 Two Pole Meters -or-
  - 8/16 Three Pole Meters
- 12 Input versions configurable as follows:
  - 12 Single Pole Meters -or-
  - 4 Two Pole Meters -or-
  - 4 Three Pole Meters
- Consult factory for any other configuration options
- Reference Voltage inputs
  - 12 Input Version—One set of three phase reference inputs
  - 24 or 48 Input Versions—Two sets of three phase reference inputs
- Line powered from 90-600V, phase-to-phase
- Meets ANSI & IEC metering system accuracy requirements including branch CTs
- Supports solid core, split core and Rogowski Coil CTs
- Meter board features:
  - Easy access terminals for CT wiring, removable connectors
  - Available with or without display embedded options
- Reports volts, amps, power, demand and energy for each circuit
- Limited 5-year warranty



70D48-000



70N48-000



71D48-000



70D12-000



71D12-000

SERIES 7000 AND 7100 ADVANCED BRANCH CIRCUIT MONITORS

VOLTAGE	DESCRIPTION	CAT. NO.
120V-480VAC	Series 7000 Embedded Panel Mount (no enclosure) Branch Circuit Monitor, 12 inputs, LCD display	70D12-000
	Series 7000 Embedded Panel Mount (no enclosure) Branch Circuit Monitor, 12 inputs, no display	70N12-000
	Series 7100 Branch Circuit Monitor, 12 Inputs, LCD display, NEMA 1 enclosure	71D12-000
	Series 7000 Dual Voltage, Embedded Panel Mount (no enclosure) Branch Circuit Monitor, 24 inputs, LCD display	70D24-000
	Series 7000 Dual Voltage, Embedded Panel Mount (no enclosure) Branch Circuit Monitor, 24 inputs, no display	70N24-000
	Series 7100 Dual Voltage, Branch Circuit Monitor, 24 inputs, LCD display, NEMA 1 enclosure	71D24-000
	Series 7000 Dual Voltage, Embedded Panel Mount (no enclosure) Branch Circuit Monitor, 48 inputs, LCD display	70D48-000
	Series 7000 Dual Voltage, Embedded Panel Mount (no enclosure) Branch Circuit Monitor, 48 inputs, no display	70N48-000
	Series 7100 Dual Voltage, Branch Circuit Monitor, 48 inputs, LCD display, NEMA 1 enclosure	71D48-000

COMPATIBLE CT OPTIONS*

AMP	DESCRIPTION	CAT. NO.
100	Solid Core CT, 333mV, 0.75" (19mm) ID	CDV01-K17
200	Solid Core CT, 333mV, 0.75" (19mm) ID	CDV02-K17
50	Split Core CT, 333mV, 0.4"	CTV5X-WA4
100	Split Core CT, 333mV, 1.6" x 2.1"	CTV01-KD0
200	Split Core CT, 333mV, 2.2" x 2.8"	CTV02-KD0
400	Split Core CT, 333mV, 1.25" x 1.25"	CTV04-KD1
800	Split Core CT, 333mV, 6.0" x 5.2"	CTV08-KG1
5-4000A	Rogowski Coil CT 16", 131mV/1000A @ 60Hz, 109.2mV/1000A @ 50Hz	CRV50-LR2
5-4000A	Rogowski Coil CT 24", 131mV/1000A @ 60Hz, 109.2mV/1000A @ 50Hz	CRV50-LR4

*333mV CTs, sold separately

SERIES 7000 AND 7100 ADVANCED 3-PHASE METER

The VerifEye™ Series 7000 and 7100 Advanced 3-Phase meters are a versatile option for a broad range of commercial/ industrial submetering applications. The meter's versatile power metering functionality continues the VerifEye mission of lowering the total cost of collecting data by reducing install complexity and increasing flexibility. The plug-and-play integration ensures the full complement of data points are immediately captured and made available for countless applications.

- Monitors a single 3-phase circuit Configurations options for 1-pole or 2-pole loads
- Solid core CTs (100A & 200A)
- Split core CTs (50A to 800A)
- Rogowski coil CTs (5A to 4000A)
- Line powered from 90-600V, phase-to-phase
- ANSI & IEC metering system accuracy including branch CTs
- Meter board features:
  - Easy access terminals for CT wiring, removable connectors
  - Easily route cable and view LEDs from any angle
  - Reports volts, amps, power, demand, and energy for each circuit
- Provides multi-phase totals for loads with 1-, 2-, and 3-pole breaker positions
- User-configurable alarm thresholds register for improved load management
- Selectable phase orientation
- Limited 5-year warranty

SERIES 7000 AND 7100 ADVANCED 3-PHASE METERS

VOLTAGE	DESCRIPTION	CAT. NO.
90-346 Volts AC Line-to-Neutral, 600V Line-to-Line, CAT III	Series 7000 Advanced 3-Phase Meter (DIN Rail Mount)	70D03-000
	Series 7100 Advanced 3-Phase Meter (NEMA 1 Wall Mount Enclosure)	71D03-000

COMPATIBLE CT. OPTIONS*

AMP	DESCRIPTION	CAT. NO.
100	Solid Core CT, 333mV:100A, 0.75"	CDV01-K17
200	Solid Core CT, 333mV:200A, 0.75"	CDV02-K17
50	Split Core CT, 333mV:50A, 0.4"	CTV5X-WA4
100	Split Core CT, 333mV:100A, 1" Window	CTV01-KD0
200	Split Core CT, 333mV:200A, 1" Window	CTV02-KD0
400	Split Core CT, 333mV, 400A, 1.25" x 1.25"	CTV04-KD1
800	Split Core CT, 333mV:800A, 3.0"x3.5" Window	CTV08-KG1
5-4000A	5-4000A Rogowski Coil CT 16", 131mV/1000A @ 60Hz, 109.2mV/1000A, @ 50Hz	CRV50-LR2
5-4000A	5-4000A Rogowski Coil CT 24", 131mV/1000A @ 60Hz, 109.2mV/1000A, @ 50Hz	CRV50-LR4

*333mV CTs, sold separately



70D03-000



71D03-000

SERIES 7200-7300 BRANCH CIRCUIT MONITORS 48 CIRCUIT (24 VIRTUAL METERS)

The VerifEye™ Series 7200 and 7300 Virtual Element Advanced Branch Circuit Monitors are a cost-effective solution for electrical load management. The Series 7200 and 7300 platform is ideal for high density, branch circuit monitoring applications in both new construction and retrofit applications. The Series 7200 and 7300 monitors up to 24 branch circuits with one single meter board.

- 48 individual Current Transformer (CT) inputs
- Inputs configurable as follows:
  - 24 virtual meters in any combination of single-phase, two-phase, or three-phase limited to the total 48 CT inputs
  - Consult factory for any other configurations
- Line powered from 90-600V, phase-to-phase
- Bidirectional monitoring
- Meets ANSI & IEC metering system accuracy requirements including branch CTs
- Supports split core and Rogowski Coil CTs
- Meter board features:
  - Easy access terminals for CT wiring, removable connectors
  - Available with or without display embedded options
- Reports volts, amps, power, demand and energy for each circuit—each Series 7200 and 7300 covers a complete 42 breaker panelboard plus mains for a total of 48 circuits
- User-configurable alarm thresholds register for improved load management
- Selectable phase orientation and number of circuits
- Limited 5-year warranty

SERIES 7200-7300 BRANCH CIRCUIT MONITORS

VOLTAGE	DESCRIPTION	CAT. NO.
90-346 Volts AC Line-to-Neutral, 600V Line-to-Line CAT III	Series 7200 Embedded Panel Mount (no enclosure) Branch Circuit Monitor, 48 inputs, LCD display	72D48-000
	Series 7200 Embedded Panel Mount (no enclosure) Branch Circuit Monitor, 48 inputs, no display	72N48-000
	Series 7300 Branch Circuit Monitor, 48 inputs, LCD display, NEMA 1 enclosure	73D48-000

COMPATIBLE CT. OPTIONS*

AMP	DESCRIPTION	CAT. NO.
100	Solid Core CT, 333mV:100A, 0.75"	CDV01-K17
200	Solid Core CT, 333mV:200A, 0.75"	CDV02-K17
50	Split Core CT, 333mV:50A, 0.4"	CTV5X-WA4
100	Split Core CT, 333mV:100A, 1" Window	CTV01-KD0
200	Split Core CT, 333mV:200A, 1" Window	CTV02-KD0
400	Split Core CT, 333mV, 400A, 1.25" x 1.25"	CTV04-KD1
800	Split Core CT, 333mV:800A, 3.0"x3.5" Window	CTV08-KG1
5-4000A	5-4000A Rogowski Coil CT 16", 131mV/1000A @ 60Hz, 109.2mV/1000A, @ 50Hz	CRV50-LR2
5-4000A	5-4000A Rogowski Coil CT 24", 131mV/1000A @ 60Hz, 109.2mV/1000A, @ 50Hz	CRV50-LR4

*333mV CTs, sold separately



72D48-000



72N48-000



73D48-000

SERIES 1000 SINGLE PHASE METERS

- Kits include meter, specified enclosure and required current transformers
- kWh and Demand Meter; S2000 Indoor Split Core Kits only
- 100-800 Amps
- Isolated Pulse output (standard)
- Large LCD display
- ANSI 0.5% revenue grade accuracy class
- Utilizes split and solid core current transformers (CTs) that are certified to all revenue grade accuracy standards
- Up to three sets of split core or solid core CTs per phase can be paralleled per meter
- UL listed



Series 1000 Meter
Outdoor



Series 1000 Meter
Indoor

SERIES 1000 SINGLE PHASE METER KITS

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

INDOOR ENCLOSURE

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

OUTDOOR ENCLOSURE

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

SERIES 2000 THREE PHASE METERS

- Kits include meter, specified enclosure and required current transformers
- kWh and Demand Meter-S2000 Indoor Split Core Kits only
- 120/208V or 277/480V 3PH 4W WYE only
- 100-1200A
- Isolated pulse output — standard
- Large LCD Display
- Revenue grade accuracy: 0.5%
- Utilizes split and solid core current transformers (CTs) that are certified to all revenue grade accuracy standards
- Up to three sets of solid or split core CTs per phase can be paralleled per meter
- UL listed



Series 2000 Meter
Outdoor



Series 2000 Meter
Indoor

SERIES 2000 THREE PHASE METER KITS

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

INDOOR ENCLOSURE

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

OUTDOOR ENCLOSURE*

VOLTAGE	AMPS	CTS INCLUDED	CAT. NO.
120/208V 3PH 4W WYE kWh Meter	100	3 Split CTs	20208-01W
	200		20208-02W
	400		20208-04W
	800		20208-08W
	1200		20208-12W
277/480V 3PH 4W WYE kWh Meter	100		20480-01W
	200		20480-02W
	400		20480-04W
	800		20480-08W
	1200		20480-12W

*Outdoor meters do not offer demand functionality.

SERIES 4000 INDUSTRIAL MODBUS METER KITS

Series 4000 Industrial Modbus Meter Kits are revenue-grade (ANSI C12.20 Class 0.2%) kWh electrical meters. The Series 4000 Kits include a DIN rail mount, 3-phase, advanced communication meter with split core or flexible rope-style Rogowski CTs for compact or irregular shaped conductors. Combinations of serial communication, pulse output and phase alarms are provided to suit a wide variety of applications.

- Industrial Temperature Range of -22 to 158°F (30 to 70°C)
- DIN Rail options available
- Options for 100, 200, 400 and 800A Split Core CTs and Rogowski CTs (50-5000A)
- ANSI 12.20 0.2% accuracy, IEC 62053-22 Class 0.2S
- Real energy output and phase loss alarm output
- User-enabled password protection to protect meter from tampering
- Bright, backlit LCD for installation in dark areas and viewing real time data
- AMR/BAS system integration via Modbus RTU- RS-485 2-wire with shield
- 90-600VAC (50/60Hz) versatility including 347V (L-N) and 600V (L-L) with fewer models to stock



Series 4000 DIN Rail Mount



Series 4000 Outdoor NEMA Enclosure

SERIES 4000 MODBUS METER KITS

DIN RAIL MOUNT KITS

VOLTAGE	AMPS	CTS INCLUDED	CAT. NO.
Universal 3PH 3W/4W	100	Split Core CTs	4KUMR-01M
	200		4KUMR-02M
	400		4KUMR-04M
	800		4KUMR-08M
	50-5000	12" Rogowski Coil CTs	4KUMR-R12
	50-5000	18" Rogowski Coil CTs	4KUMR-R18
	50-5000	24" Rogowski Coil CTs	4KUMR-R24

STANDALONE METERS ONLY

Universal 3PH 3W/4W	100, 200, 400, 800	Split Core CTs Only	4KUMR-00M
	50-5000	Rogowski Coil CTs Only	4KUMR-00R

OUTDOOR NEMA ENCLOSURE KITS

Universal 3PH 3W/4W	100	Split Core CTs	4OUMR-01M
	200		4OUMR-02M
	400		4OUMR-04M
	800		4OUMR-08M
	50-5000	12" Rogowski Coil CTs	4OUMR-R12
	50-5000	18" Rogowski Coil CTs	4OUMR-R18
	50-5000	24" Rogowski Coil CTs	4OUMR-R24

COMPONENTS

AMPS	DESCRIPTION	CAT. NO.
100	Split Core CTs	CTV01-KD0
200		CTV02-KD0
400		CTV04-KD1
800		CTV08-KG1
—	Fuse Pack, 1/2A, 600VAC, slow blow	CTV00-FK3
20-5000	12" Rogowski Coil CTs	CRV50-K62
	18" Rogowski Coil CTs	CRV50-K93
	24" Rogowski Coil CTs	CRV50-KC2
100	Solid Core CTs	CDV01-K17
200		CDV02-K17

SERIES 4100 BIDIRECTIONAL MODBUS RTU OR BACNET MS/TP METER KITS

The VerifEye Series 4100 Bidirectional Modbus RTU or BACnet MS/TP Meter Kits feature bidirectional monitoring specifically designed for renewable energy applications. The Series 4100 Meter Kits measure power imported from the utility grid and power exported from renewable energy source like solar panels. The Series 4100 Meter Kits are available in a standalone DIN rail mount or NEMA 4X enclosures and come with either split core or flexible rope-style Rogowski Current Transformers (CTs).



Series 4100 DIN Rail Mount



Series 4100 Outdoor NEMA Enclosure

- Bidirectional energy monitoring for renewable energy applications
- Industrial temperature range: -22 to 158°F (-30 to 70°C)
- 50/60 Hz
- Options for 100, 200, 400, and 800A Split Core CTs and Rogowski CTs (50-5000A)
- DIN rail mount option available
- User-enabled password protection to protect meter from tampering
- Bright, backlit LCD for installation in dark areas and viewing real time data
- AMR/BAS system integration via Modbus RTU or BACnet MS/TP - RS-485 Serial
- CSI approval for California Solar Initiative
- 90-600V versatility (347V L-N max)

SERIES 4100 BIDIRECTIONAL MODBUS RTU AND BACNET MS/TP METER KITS

INDOOR DIN RAIL MOUNT MODBUS METER KITS

VOLTAGE	AMPS	CTS INCLUDED	CAT. NO.
Universal 3PH 3W/4W Modbus RTU	100	Split Core CTs	4DUMR-01M
	200		4DUMR-02M
	400		4DUMR-04M
	800		4DUMR-08M
	50-5000	12" Rogowski Coil CTs	4DUMR-12R
	50-5000	18" Rogowski Coil CTs	4DUMR-18R
	50-5000	24" Rogowski Coil CTs	4DUMR-24R

INDOOR DIN RAIL MOUNT BACNET MS/TP METER KITS

Universal 3PH 3W/4W BACnet MS/TP	100	Split Core CTs	4DUBM-01B
	200		4DUBM-02B
	400		4DUBM-04B
	800		4DUBM-08B
	50-5000	12" Rogowski Coil CTs	4DUBM-12R
	50-5000	18" Rogowski Coil CTs	4DUBM-18R
	50-5000	24" Rogowski Coil CTs	4DUBM-24R

OUTDOOR NEMA ENCLOSURE - MODBUS METER KITS

VOLTAGE	AMPS	CTS INCLUDED	CAT. NO.
Universal 3PH 3W/4W Modbus RTU	100	Split Core CTs	41OUM-01M
	200		41OUM-02M
	400		41OUM-04M
	800		41OUM-08M
	50-5000	12" Rogowski Coil CTs	41OUM-R12
	50-5000	18" Rogowski Coil CTs	41OUM-R18
	50-5000	24" Rogowski Coil CTs	41OUM-R24

OUTDOOR NEMA ENCLOSURE - BACNET MS/TP METER KITS

Universal 3PH 3W/4W BACnet MS/TP	100	Split Core CTs	41OUB-01B
	200		41OUB-02B
	400		41OUB-04B
	800		41OUB-08B
	50-5000	12" Rogowski Coil CTs	41OUB-12R
	50-5000	18" Rogowski Coil CTs	41OUB-18R
	50-5000	24" Rogowski Coil CTs	41OUB-24R

SERIES 6000 INDUSTRIAL PANEL MOUNT METER AND SERIES 6000 INDUSTRIAL PANEL MOUNT METER WITH NEMA 4X ENCLOSURE

The VerifEye Series 6000 Panel Mount Meters are designed to monitor a comprehensive data set of electrical parameters for industrial applications. These meters fit in a standard 92mm x 92mm panel mount cutout. The VerifEye Series 6000 Panel Mount Meters With NEMA 4X Enclosure come in a NEMA 4X enclosure. Both sets of meters are offered with a range of Split Core and Rogowski smart current transformers to cover a broad range of applications. The integrated configuration wizard makes initial setup quick and easy, reducing commissioning time and providing reliable results.

- Real-time measurement of electrical values with graphical display
- Power quality analysis of service and loads
- Industrial electrical load management
- OEM panel shop applications
- Measurement of active, reactive, and apparent energy
- Alarms features to notify when parameters are outside defined ranges
- Auto-ranging CTs simplify setup and eliminate mistakes
- CT options from 25A to 6000A
- 5-year warranty



Series 6000 Meter


Series 6000 Meter With NEMA 4X Enclocure


Split Core CT


Rogowski Coil CT

SERIES 6000 INDUSTRIAL PANEL MOUNT METERS

SERIES 6000 PANEL MOUNT METER

VOLTAGE	DESCRIPTION	CAT. NO.
Universal 3PH 3W/4W	Modbus RTU (RS485) Interface	60P00-000
Universal 3PH 3W/4W	Modbus TCP (Ethernet) Interface	61P00-000

SERIES 6000 PANEL MOUNT METER WITH 4X NEMA ENCLOSURE

VOLTAGE	DESCRIPTION	CAT. NO.
Universal 3PH 3W/4W	Modbus RTU (RS485), Modbus TCP (Ethernet), and BACnet IP interface	61N00-000
CURRENT TRANSFORMERS		
.40 in (10mm) ID, .5A-.75.6A	Series 6000 Split Core CT	CTS1A-K10
.55 (14mm) ID, 0.8A-192A		CTS2B-G14
.83 in (21mm) ID, 1.26A-300A		CTS3C-G21
1.26 in (32mm) ID, 1.26A-300A		CTS6D-G32
24.72 in (628mm) overall length, 7.88 in (200mm) ID, 12A – 4800A	Series 6000 Rogowski CT	CRS4K-WRL
37.09 in (1100mm) overall length, 11.81 in (300mm) ID, 32A – 7200A		CRS6K-WRM
74.21 in (1885mm) overall length, 23.62 in (600mm) ID, 32A – 7200A		CRS6K-WRN

CT CABLES

DESCRIPTION	CAT. NO.
Series 6000 Meter - CT Cable RJ12 - 1x5M	CCSRJ-105
Series 6000 Meter - CT Cable RJ12 - 1x10M	CCSRJ-110
Series 6000 Meter - CT Cable RJ12 - 3x1M	CCSRJ-301
Series 6000 Meter - CT Cable RJ12 - 3x2M	CCSRJ-302
Series 6000 Meter - CT Cable Adapter RJ12 Female to Female	CCSRJ-3FF

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, Rogowski Coil, 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. 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

SOLID CORE—FOR USE WITH SERIES 1000, 2000, 3500 AND 8000 METERS, MINI METERS AND MMUs ONLY

AMP	DESCRIPTION	CAT. NO.
100:0.1A	2 Solid Core, 1 each Black, Red	CDA01-212
100:0.1A	3 Solid Core, 1 each Black, Red, Blue	CDA01-312
200:0.1A	2 Solid Core, 1 each Black, Red	CDA02-212
200:0.1A	3 Solid Core, 1 each Black, Red, Blue	CDA02-312
100:0.1A	Solid Core, 0.72", Black	CDA01-K12
	Solid Core, 0.72", Blue	CDA01-L12
	Solid Core, 0.72", Red	CDA01-R12
200:0.1A	Solid Core, 0.72", Black	CDA02-K12
	Solid Core, 0.72", Blue	CDA02-L12
	Solid Core, 0.72", Red	CDA02-R12
400:0.1A*	Solid Core, 1.5", Black	CDF04-K24

*Not for use with Mini Meters

333mV SOLID CORE—FOR USE WITH SERIES 7000 AND 7100 METERS ONLY

AMP	DESCRIPTION	CAT. NO.
100:0.333mV	Solid Core, 0.60"	CDV01-W15
200:0.333mV	Solid Core, 0.78"	CDV02-W20

SPLIT CORE—FOR USE WITH SERIES 1000, 2000, 3500, 8000, MINI METERS METERS AND MULTIPLE METER UNITS (MMUs) ONLY

AMP	DESCRIPTION	CAT. NO.
100:0.1A	Split Core, .75" x .75"	CTA01-KC0
200:0.1A	Split Core, 1" x 1"	CTA02-KD0
400:0.1A	Split Core, 1.5", x 1.5"	CTA04-KD1
800:0.1A	Split Core, 3" x 3.5"	CTA08-KG1
1200:0.1A	Split Core, 4" x 6"	CTA12-KJ4

333mV SPLIT CORE—FOR USE WITH SERIES 4000, 4100 INDUSTRIAL MODBUS METER KITS AND SERIES 7000 AND 7100 METERS ONLY

AMP	DESCRIPTION	CAT. NO.
100:0.333V	Split Core, 1.0"	CTV01-KD0
200:0.333V	Split Core, 1.0"	CTV02-KD0
400:0.333V	Split Core, 1.25"	CTV04-KG1
800:0.333V	Split Core, 3" x 3.5"	CTV08-KG1
50:0.333V	Hinged Split Core, 0.4"	CTV5X-WA4
100:0.333V	Hinged Split Core, .94"	CTV01-WC9
200:0.333V	Hinged Split Core, .94"	CTV02-WC9
400:0.333V	Hinged Split Core, 1.42"	CTV04-WD5

ROGOWSKI COIL—FOR USE WITH SERIES 4000 AND 4100 INDUSTRIAL MODBUS METER KITS ONLY

AMP	DESCRIPTION	CAT. NO.
50-5000A	Rogowski Coil, 12"	CRV50-K62
	Rogowski Coil, 18"	CRV50-K93
	Rogowski Coil, 24"	CRV50-KC2

ROGOWSKI COIL—FOR USE WITH SERIES 7000 AND 7100 METERS ONLY

AMP	DESCRIPTION	CAT. NO.
50-4000A	Rogowski Coil, 16"	CRV50-LR2
	Rogowski Coil, 24"	CRV50-LR4



Split Core
Current Transformers
50A - 400A, .333V



Split Core
Current Transformers
100A-1,200A, 100mA



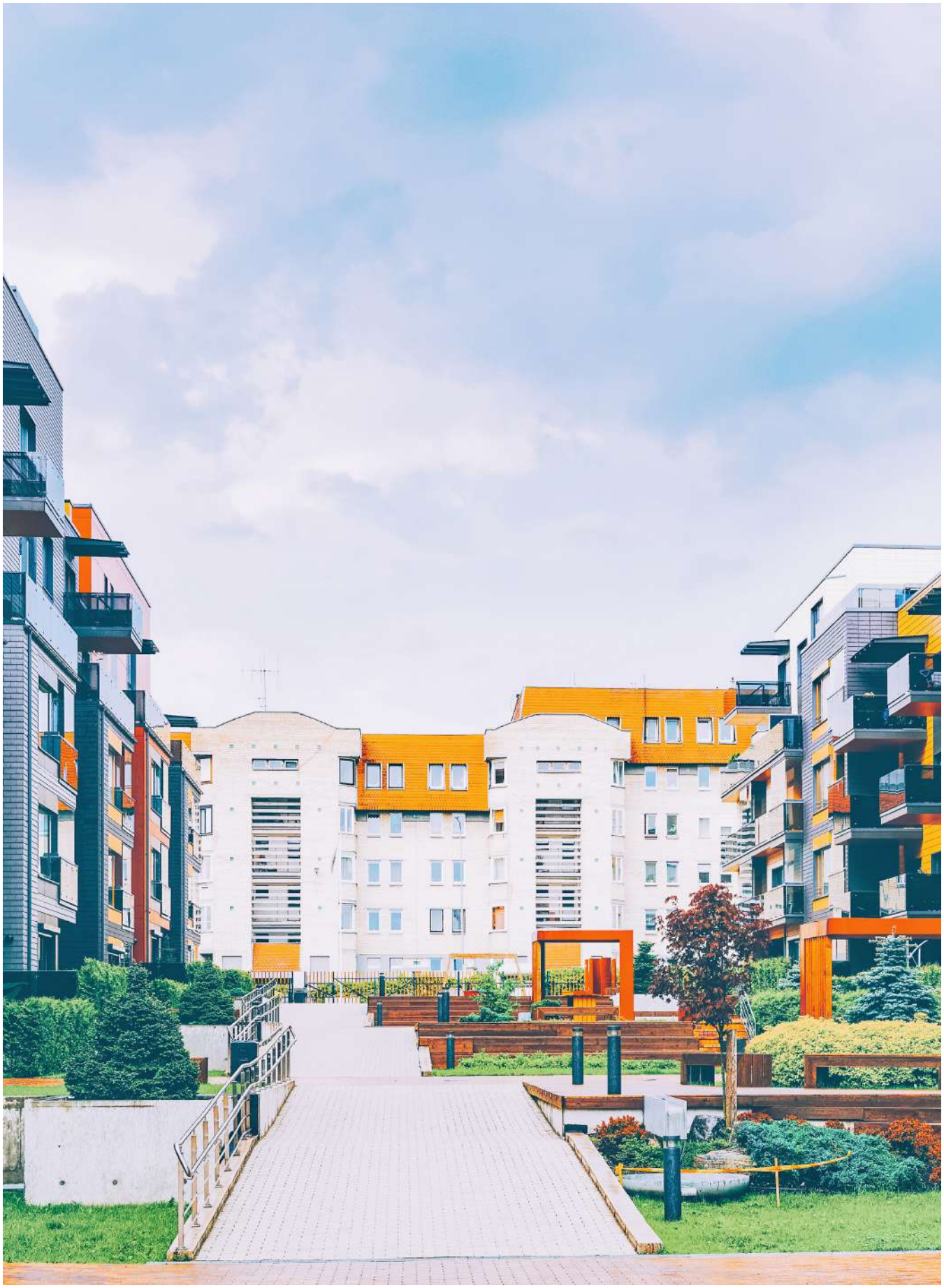
Solid Core
Current Transformers
100A, 200A, 100mA



Solid Core
Current Transformers
100A-200A, .333mV



Rogowski Coil
Current Transformer
50A-5000A, .333V



VERIFEYE COMMUNICATION PRODUCTS


Energy Monitoring Hub (Dual Ethernet & Modbus)


Energy Monitoring Hub (EMH)


EMB Hub


EMB HubLite


High Density Pulse Module


Flex I/O Module



ModHopper

Specifications	Data Acquisition Hubs (Modbus Master)					Input/Output Module		Wireless Modbus/ Pulse Transceiver
	Energy Monitoring Hub, Dual Ethernet, Dual Modbus	Energy Monitoring Hub Dual Ethernet, 1 Modbus, 4 Pulse, 2 Digital Alarm	Energy Monitoring Hub (EMH)*	EMB Hub*	EMB HubLite*	High Density Pulse Module	Flex I/O Module	ModHopper
	EMHXD	EMHSP	A8812	A8810	A7810	A8911	A8332	R9120
Communication Protocols	Modbus RTU Modbus TCP BACnet IP BACnet MSTP TCP/IP PPP HTTP/HTML FTP NTP XML SNMP-Trap		Modbus RTU Modbus TCP TCP/IP PPP HTTP/HTML FTP NTP XML SNMP-Trap BACnet IP		Modbus TCP TCP/IP PPP HTTP/HTML FTP NTP XML SNMP-Trap BACnet IP	Modbus RTU		Modbus RTU
Applications	Use with an Ethernet (LAN) connection to push-or-pull data via HTTP, XML, and FTP Connect to web-based (IP-based) software dashboards, energy information management systems and demand response systems					Use with EMH to take advantage of plug-in communication Use with ModHopper for wireless communication Push-or-pull meter data to VerifEye kiosks and software applications		Designed specifically for wireless submetering Collect meter data from multiple buildings over long distances Self-healing mesh network using frequency agile technology

* Pulse, analog, status and resistive

HOW TO SELECT THE APPROPRIATE DATA ACQUISITION HUB

	Modbus TCP	Modbus RTU	Pulse Inputs Onboard	Flex Inputs On Board**	BACnet
EMHXD-220 EMH	X	X	-	-	X
EMHSP-214 EMH	X	X	4	-	X
A8812-000 EMH	X	X	8	8	X
A8810-000 EMB Hub	X	X	-	-	X
A7810-000 EMB HubLite	X	-	4	-	X

METERING COMMUNICATIONS SYSTEMS

To create a data network between Leviton submeters and stakeholders (BAS, third party billing, Building Manager Online (BMO) 3.0), 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.

DATA ACQUISITION HUBS

ENERGY MONITORING HUBS

Data Acquisition Hubs, including the Energy Monitoring Hubs (EMH and EMHXD), EMB and EMB HubLite are intelligent, flexible data acquisition servers allowing users to collect energy data from meters and environmental sensors. As Designed to connect to IP-based applications such as enterprise energy management, demand response and smart grid programs, Hub servers allow you to 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.)



Energy Monitoring Hub



Energy Monitoring Hub
(Dual Ethernet, Dual Modbus)



EMB Hub

DATA ACQUISITION HUBS

DESCRIPTION	CAT. NO.
Energy Monitoring Hub, Dual Ethernet, Dual Modbus	EMHXD-220
Energy Monitoring Hub, 2 Ethernet, 1 Modbus (RS485), 4 Pulse Inputs, 2 Digital Outputs	EMHSP-214
Energy Monitoring Hub	A8812-000
EMB Hub	A8810-000
EMB HubLite	A7810-000
Power Supply for EMB Hubs and EMB HubLite (order separately)*	YBM07-001

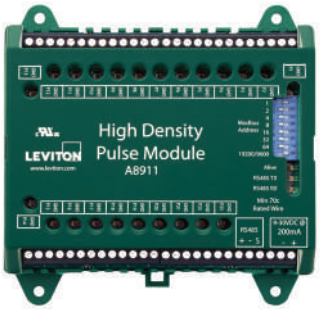
*Power supply is used for EMB Hub and HubLite

INPUT/OUTPUT MODULES

HIGH DENSITY PULSE MODULE

The High Density Pulse Module provides a convenient way to expand a Leviton VerifEye™ 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 4,000 ft and pulse input communications up to 200 ft 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 Flex I/O Module can be incorporated with data acquisition and metering devices to provide a cost-effective energy monitoring solution. The Flex I/O Module is compatible with virtually any Modbus master, allowing customers the flexibility to use it in existing Modbus networks. Use with the VerifEye Energy Monitoring Hub (EMH).



Flex I/O Module

- Easily add meters and sensors to the Modbus network
- 8x user selectable inputs
- 2x output relays for manual controls or pulse replication
- Non-volatile memory
- Industrial temperature range of -22 to 158°F (-30 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

INPUT/OUTPUT MODULES

DESCRIPTION	CAT. NO.
High Density Pulse Module, 23 Inputs	A8911-000
Flex I/O Module, 8 User Selectable Inputs, 2 Relay Outputs	A8332-000
DIN Rail Mount Power Supply, +24VDC	PST24-I10

MODHOPPER

WIRELESS

The ModHopper is designed with breakthrough mesh technology that makes connecting Modbus RTU (RS-485) and pulse devices simple and cost effective. Our "smart" ModHopper transceivers eliminate the need for costly wiring runs allowing users to wirelessly capture meter data in the most challenging retrofit and campus environments. Collect data from meter points in existing buildings with minimum down-time or disruption of day-to-day operations.

- Designed specifically for wireless metering and VerifEye submetering 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 (3,000 ft 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

DESCRIPTION	CAT. NO.
ModHopper and Power Supply	R9120-500
High Gain Antenna for ModHopper	R9120-ANT


High Gain Antenna for ModHopper

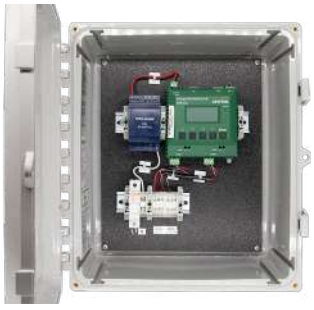
NEMA COMMUNICATION BUNDLES

NEMA Communication Bundles combine VerifEye's Data Acquisition Products into one enclosure for a VerifEye-exclusive, all-in-one-bundled communication solution for indoor use. All VerifEye NEMA communication bundles have one part number and are factory pre-assembled for ease of ordering eliminating the need for field assembly.

NEMA COMMUNICATION BUNDLES

DESCRIPTION	CAT. NO.
Energy Monitoring Hub, Dual Ethernet, Dual Modbus with Line Voltage Power Supply, NEMA 4X Enclosure	EMHXD-N4X
Energy Monitoring Hub, 2 Ethernet, 1 Modbus (RS485), 4 Pulse Inputs, 2 Digital Outputs with Line Voltage Power Supply, NEMA 4X Enclosure	EMHSP-N4X
Energy Monitoring EMB Hub with Line Voltage Power Supply, NEMA 4X Enclosure	A8810-PS1
Energy Monitoring EMB HubLite with Line Voltage Power Supply, NEMA 4X Enclosure	A7810-PS1
HD Pulse Module with Line Voltage Power Supply, NEMA 4X Enclosure	A8911-PS1
Flex I/O Module with Line Voltage Power Supply, NEMA 4X Enclosure	A8332-PS1


A8810-PS1


EMHXD-N4X

WIRELESS AMR SYSTEM FOR SUBMETERING

The Leviton VerifEye™ Wireless Automated Meter Reading (AMR) System is specifically designed to support wireless data collection from energy and water submeters in residential multi-tenant and specific commercial building applications. This fixed-network system allows for ease of data acquisition and export to tenant billing software and management platforms.

WIRELESS METERING DATA TRANSCEIVER (MDT)

The MDT records usage data from a wide variety of energy and water meters and transmits that data via radio frequency to the Data Concentrating Access Point (DCAP) in hourly intervals.

- Single Input Pulse
- Dual Input Pulse
- Encoder
- Interval data options are also available with Time of Use (TOU) models



Wireless MDT

WIRELESS METERING DATA TRANSCEIVER (MDT) WITH LCD

For use in properties where easy access to meter readings are required under the Americans with Disabilities Act. The LCD screen displays the consumption for 60 seconds when the button is pushed and displays the same consumption value as the meter. All programmed parameters transfer to the DCAP for seamless integration into the data provided by the CIT and daily reports.

- Specialized enclosure with a standard sized wallplate back piece that mounts to a standard 1-gang electrical box for a professional looking installation
- Powered by two AA batteries for a five-year battery life under typical conditions
- NTEP certification #16-013 accepted by California Weights and Measures



Wireless MDT with LCD

DATA CONCENTRATING ACCESS POINTS (DCAPS)

The DCAP is the brains of the VerifEye wireless system incorporating a powerful embedded micro-computer and integrated radio transceiver. The DCAP communicates with each Repeater and MDT and stores meter reading history.

- Local storage of up to one million data points
- Multiple levels of security for database access
- Integrated alarm monitoring and configurable e-mail alerts
- Accurate real-time clock
- USB port for initial device setup



DCAP

RF NETWORK DIVERSITY REPEATER

Extends the range of two-way radio signals between MDTs and DCAPS

- Provides improved ability to receive distant RF signals
- Diversity antennas for optimal system communications redundancy



Repeater

WIRELESS METERING DATA TRANSCEIVER (MDT)

DESCRIPTION	CAT. NO.
Wireless Metering Data Transceiver (Wireless DCAP required to complete system), single pulse counter, 15 min TOU battery powered	T70MB-ST0
Wireless Metering Data Transceiver (Wireless DCAP required to complete system), single pulse counter, 1-hour interval, battery powered	T70MB-SP0
Wireless Metering Data Transceiver (Wireless DCAP required to complete system), dual pulse counter, 1-hour interval, battery powered	T70MB-DP0

WIRELESS METERING DATA TRANSCEIVER (MDT) WITH LCD

DESCRIPTION	CAT. NO.
Wireless Metering Data Transceiver with Display (Wireless DCAP required to complete system), single pulse counter, 1-hour interval, battery pow ered	T75MB-SP0
Wireless Metering Data Transceiver with LCD (Wireless DCAP required to complete system), dual pulse counter, 1-hour interval battery powered	T75MB-DP0

DATA CONCENTRATING ACCESS POINTS (DCAPS)

DESCRIPTION	CAT. NO.
DCAP, low capacity (150 meter points max), includes radio receiver	T25DX-151
DCAP, standard capacity, (1000 meter points max), includes radio receiver	T25DX-102
DCAP, high capacity, (2000 meter points max) includes radio receiver	T25DX-202

WIRELESS REPEATER

DESCRIPTION	CAT. NO.
Wireless Repeater - extended range for use with wireless submetering systems. 5VDC, 800mA (120VAC power supply included)	T95RX-000

UL508A PANELS FOR SUBMETERING & DATA ACQUISITION

Leviton offers a wide range of configured panel solutions for the communications, data acquisition, and submetering market. With in-house UL508A Panel Shop certification, Leviton can deliver significantly better value than third party panel shops.


70D48-N4X

70D48-N4X HIGH DENSITY METER

- 48 circuit meter with dual reference voltage inputs
- Supports both Modbus and BACnet interface
- NEMA 4X Enclosure
- Fuse protection for two reference voltage circuits


81000-L03

81000-L03 DATA ACQUISITION SOLUTIONS

- DAS for data logging and control
- 3-phase meter for bi-directional power monitoring
- 24V DC Power Supply included


81M00-0

81M00-0 DATA ACQUISITION SOLUTION

- DAS with Wireless ModHopper
- Base Station for 900 mHz wireless architecture
- 24V DC Power Supply included

UL508A CONFIGURED PANEL SOLUTIONS

DESCRIPTION	CAT. NO.	INTEGRATED DAS	INTEGRATED METER	INTEGRATED COMMUNICATIONS
VerifEye ModHopper, Antenna Connector (No-antenna), Power Supply	U0M00-E00	-	-	R9120 ModHopper Wireless
VerifEye ModHopper, Antenna Connector, Power Supply	U0M00-P00	-	-	R9120 ModHopper Wireless
VerifEye ModHopper, HD Pulse Module, Power Supply	UMH00-000	-	-	A8911 HD Pulse Module, R9120 ModHopper Wireless
VerifEye A8810, Dual Protocol Modem	810DU-0	A8810	-	4G Dual Protocol Modem
VerifEye A8810, HD Pulse Module, Power Supply	81H00-000	A8810	-	A8911 HD Pulse Module
VerifEye A8810, HDPM, Dual-Band Modem (CradlePoint)	81HDU-0	A8810	-	A8911 HD Pulse Module, 4G Dual Procotol Modem
VerifEye A8810, ModHopper, Power Supply	81M00-000	A8810	-	-
VerifEye A8810, 70D03, Power Supply	81000-L03	A8810	70D03	-
VerifEye A8810, 70D12, Power Supply	81000-L12	A8810	70D12	-
VerifEye A8810, 70D24, Power Supply	81000-L24	A8810	70D24	-
VerifEye A8810, 70D48, Power Supply	81000-L48	A8810	70D48	-
VerifEye A8810, 4DUMR-00M, DUAL-Band (CradlePoint), Switch	81SDU-41M	A8810	4DUMR-00M (Split Core)	4G Dual Procotol Modem, Ethernet Switch
VerifEye A8810, 4DUMR-00R, DUAL-Band (CradlePoint), Switch	81SDU-41R	A8810	4DUMR-00R (Rogowski)	4G Dual Procotol Modem, Ethernet Switch
VerifEye A8810, 4DUMR-00M, Power Supply	A8810-41M	A8810	4DUMR-00M (Split Core)	-
VerifEye A8810, 4DUMR-00R, Power Supply	A8810-41R	A8810	4DUMR-00R (Rogowski)	-
VerifEye 70D03, 3P Disconnect	70D03-N4X	-	70D03	-
VerifEye 70D12, 3P Disconnect	70D12-N4X	-	70D12	-
VerifEye 70D24, 3P Disconnect	70D24-N4X	-	70D24	-
VerifEye 70D48, 2 x 3P Disconnects	70D48-N4X	-	70D48	-

VERIFEYE SOFTWARE PRODUCTS

BUILDING MANAGER ONLINE (BMO)

VerifEye Building Manager Online web-based software provides the Measurement & Verification (M&V) tools necessary to get the most out of your submetering system.

BUILDING MANAGER ONLINE MODULES







	Base Energy Management	Energy Management with Advanced Reporting	Tenant Billing
	Web-Based Software		
Primary Functions	Provides a summary of energy profiles to help identify high and low consumption as well as energy usage patterns for user defined intervals. Populates reports based on user configured preferences. Assists end users in meeting the growing requirements of local and national energy codes such as IECC, ASHRAE 90.1, Title 24, Seattle Energy Code, and New York Local Laws 88, 132, and 133.	Includes all the functionality of the Base Module with the addition of enhanced reporting and dashboarding features. Adds support for Daily and Hourly Heat Maps, Drift Analysis reporting and Kiosk display. Provides custom report design features.	Monitor individual units to create invoices and tenant billing reports. Supports an online portal for tenants to log in and monitor their usage and billing information. Includes all the features of both the Base and Advanced Reporting Modules.

BASE MODULE

DESCRIPTION	CAT. NO.
BMO Energy Management Software - Annual License (50 Data Points)	BMOBM-050
BMO Energy Management Software - Monthly License (50 Data Points)	BMOBM-M50

ADVANCED REPORTING MODULE

DESCRIPTION	CAT. NO.
BMO Energy Management Software with Advanced Reporting - Annual License (50 Data Points)	BMOAR-050
BMO Energy Management Software with Advanced Reporting - Monthly License (50 Data Points)	BMOAR-M50

TENANT BILLING MODULE

DESCRIPTION	CAT. NO.
BMO Tenant Billing Software - Annual License (50 Data Points)	BMOTB-050
BMO Tenant Billing Software - Monthly License (50 Data Points)	BMOTB-M50

SUPPORT SERVICES

DESCRIPTION	CAT. NO.
BMO Short Term Support Plan (90 Days)	BMOSW-STP
BMO Long Term Support Plan (1 Year)	BMOSW-LTP

Service and Support
During Every Step of the Process

There is much more to measuring and managing a facility's energy than just installing a meter or two. System design, product selection, installation and service: it all has to come together. That's where Leviton service and support options come in. We'll help you design your system and make the right product selections so you can create an energy management system that does exactly what you want it to do while saving electricity, billing tenants and meeting codes and standards.

It all starts with the Leviton sales representative. Our metering specialists are here to support you every step of the way. They can perform on-site facility audits and suggest specific products and strategies for improving energy monitoring and management.

Exclusive Wealth of Resources

- **Exclusive Training** - contact your local Leviton representative to have a meter expert provide training in person or online exclusively for your team
- **ASHRAE 90.1, IECC and California Title 24 Apps** - simplifies metering requirements and provides examples for common applications - available for Android and Apple devices - download at **www.leviton.com/apps**
- **ASHRAE Web Portal** - access application diagrams and product solutions – visit **www.leviton.com/ashrae**
- **IECC Web Portal -** access application diagrams and product solutions -visit **www.leviton.com/iecc**
- **Title 24 Web Portal** - access application diagrams and product solutions – visit **www.leviton.com/title24**
- **ez-Learn™** – get Leviton smart from the comfort of your home or office with this exclusive 24/7 online training – go to **www.leviton.com/ezlearn**
- Field service engineers for top-level support
- Factory commissioning service
- Dedicated technical support via phone at **800-959-6004**

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Visit our website at: www.leviton.com/verifeye

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