

## Metering Solutions



Reward of Information (ROI)

**SMARTer Metering. SMARTer Control. REAL Savings.**  
Leviton revenue-grade submetering products meet all measurement & verification-based opportunities—including smart metering and LEED rating achievement.

### The Benefits of Submetering

Leviton submeters determine exactly when and where energy is being used; information that can be both a powerful motivator and a significant money-saver to help organizations better manage costs and conserve energy. Studies have proven that once tenants became accountable for their energy consumption, it was significantly reduced. This kind of accountability can result in long-term cost savings from 15 to 20 percent\*.

**Leviton submeters deliver accurate information for:**

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

### Accurate Energy Analysis

Leviton submeters provide high-accuracy interval data snapshots of energy use and demand—from a single device or a specific area to a complete building or complex. By isolating the causes of excessive load spikes, facility managers can find ways to either eliminate them or shift them to off-peak hours when rates are lower.



\*Case Study by NYSERDA 1991-Carlyle and Scott Towers, New York City, New York State Energy Research and Development Authority.  
Residential Sub metering Case Study, Carlyle Towers & Scott Towers, October 1997

## Precise Cost Allocation

Gain the flexibility to meter specific buildings, areas, or even individual departments for cost center analysis, budgetary accountability and allocation. Including energy consumption into department budgets can provide the motivation to reduce energy use in order to stay within budget.

## Meeting Green Building Initiatives

Beyond establishing benchmark energy usage data, users can monitor usage trends, record the impact of conservation efforts, and measure and verify the effectiveness of ongoing energy saving programs with Leviton submeters.

Long-term metering allows you to see the performance of a building in “real life,” and allows the acquisition of sufficient amount of background data to prove its sustainability. In addition to LEED certification, Leviton meters are designed to help achieve these green building initiatives and program compliances:

- EPC Act 2005/EISA 2007
- Renewable energy projects
- Demand response programs
- Measurement and verification (M&V)



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## Excellence Comes Standard

- Open architecture design provides easy integration with third party AMR/BAS/BMS/EMS 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 and 2000 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 10 year warranty, the best in the industry

## Leviton Metering Philosophy

### Consultative Approach

- No customer is identical
- Finding the right match for each client, versus a blanket solution, ensures that each project gets exactly the equipment it needs—no more, no less

### Open Protocol

- Easy to install meters seamlessly coordinate with communications equipment to create custom networks
- Ease of communication between multiple parties and platforms

### Scalable System

- Implement as an entire solution or in stages based on the project and customer's needs
- Options for future upgrades and additions





## Multi-Tenant Applications

### **Commercial Office, Retail, and Mixed-Use Facilities**

Each tenant uses energy differently, Leviton submeters allow building managers to monitor and bill each tenant individually, based on actual energy use. Tenants are accountable only for the energy use they use, while building managers are able to recover all tenant-related energy costs. Precise tracking of common-area energy use, heating and cooling system energy consumption, and after-hours energy use enables building owners to better recover these previously hard-to-allocate costs. Leviton Metering Solutions have recently been implemented in marinas, campgrounds, military housing complexes, and affordable housing structures. Whatever the application, Leviton offers an affordable, scalable solution.

## Institutional Applications

### **Hospitals, Schools, Airports, and Entertainment Venues**

Analyzing energy load trends can identify opportunities to shift energy loads to off-peak hours or stagger loads to reduce demand charges. By metering specific equipment to get its energy use profile, facility engineers can often diagnose costly failures before they happen, preventing wasteful downtime.

## Governmental Applications

### **Office, Single and Multi-Family, Industrial, Medical, and Educational**

With tax credits and public monies available for conservation improvements, it's an opportune time to retrofit with Leviton submeters.

## Industrial Applications

### **Manufacturers**

In the face of demand response initiatives, manufacturers can find new opportunities to reduce and manage the energy load by monitoring and working around peak demand time frames. High-energy-use equipment can be monitored to detect maintenance issues or identify which are suitable for load shedding or shifting programs. By managing power load to reduce production and operational cost, manufacturers can ultimately lower the cost of their end products.



## Series 1000 Single Phase Meters

- kWh meter with optional Demand functionality (includes Reset Key)
- 100 - 800 Amps
- Modbus RTU (RS485) and Pulse output - standard features
- Large LCD Display
- Certified to all applicable standards of ANSI C12.1
- Utilizes split and solid core current transformers (CTs) that are certified to all revenue grade accuracy standards
- Up to three sets of CTs per phase can be paralleled per meter



### SERIES 1000 SINGLE PHASE METER KITS

#### INDOOR ENCLOSURE

VOLTAGE	AMPS	CTS INCLUDED	CAT. NO.
120V 1PH 2W	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
120/208V 1PH 3W or 120/240V 1PH 3W (Split Phase)	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
277V 1PH 2W	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.
120V 1PH 2W	100	1 Split CT	1O120-01W
	200	1 Split CT	1O120-02W
	400	1 Split CT	1O120-04W
	800	1 Split CT	1O120-08W
120/208V 1PH 3W or 120/240V 1PH 3W (Split Phase)	100	2 Split CTs	1O240-01W
	200	2 Split CTs	1O240-02W
	400	2 Split CTs	1O240-04W
	800	2 Split CTs	1O240-08W
277V 1PH 2W	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
- Modbus RTU (RS485) and Pulse output - standard features
- Large LCD Display
- Certified to all applicable standards of ANSI C12.1
- Utilizes split and solid core current transformers (CTs) that are certified to all revenue grade accuracy standards
- Up to three sets of CTs per phase can be paralleled per meter



### 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
<b>277/480V 3PH 4W WYE kWh Meter</b>	200	3 SOLID CTs	2K208-2SW
	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
<b>120/208V 3PH 4W WYE Demand Meter</b>	100	3 SOLID CTs	2K480-1SW
	200	3 SOLID CTs	2K480-2SW
	100	3 Split CTs	2K208-01D
	200	3 Split CTs	2K208-02D
	400	3 Split CTs	2K208-04D
	800	3 Split CTs	2K208-08D
<b>277/480V 3PH 4W WYE Demand Meter</b>	1200	3 Split CTs	2K208-12D
	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	2O480-01W
	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 3000 Advanced kWh Meters

- kWh meter with standard Demand functionality (includes Reset Key)
- 120/208V, 277/480V, 347/600V 3PH 4W WYE; 208V, 240V 480V 3PH 3W DELTA
- 100-5000 Amps
- Advanced data meter
- Volt, amps, watts, PF and VA per phase
- Modbus RTU (RS485) and Pulse output - standard features
- Certified to all applicable standards of ANSI C12.1
- Utilizes split and solid core current transformers (CTs) that are certified to all revenue grade accuracy standards
- Up to three sets of CTs per phase can be paralleled per meter



### SERIES 3000 ADVANCED KWH/DEMAND 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 Demand Meter</b>	100	3 Split CTs	3K208-01D
	200	3 Split CTs	3K208-02D
	400	3 Split CTs	3K208-04D
	800	3 Split CTs	3K208-08D
	1600	3 Split CTs	3K208-16D
	3000	3 Split CTs	3K208-30D
	5000	3 Split CTs	3K208-50D
	100	3 SOLID CTs	3K208-1SD
	200	3 SOLID CTs	3K208-2SD
<b>277/480V 3PH 4W WYE Demand Meter</b>	100	3 Split CTs	3K480-01D
	200	3 Split CTs	3K480-02D
	400	3 Split CTs	3K480-04D
	800	3 Split CTs	3K480-08D
	1600	3 Split CTs	3K480-16D
	3000	3 Split CTs	3K480-30D
	5000	3 Split CTs	3K480-50D
	100	3 SOLID CTs	3K480-1SD
	200	3 SOLID CTs	3K480-2SD
<b>347/600V 3PH 4W WYE Demand Meter</b>	<b>100</b>	<b>3 Split CTs</b>	<b>3K600-01D</b>
	200	3 Split CTs	3K600-02D
	400	3 Split CTs	3K600-04D
	800	3 Split CTs	3K600-08D
	1600	3 Split CTs	3K600-16D
	3000	3 Split CTs	3K600-30D
	5000	3 Split CTs	3K600-50D
	100	3 SOLID CTs	3K600-1SD
	200	3 SOLID CTs	3K600-2SD
<b>208 or 240V 3PH 3W DELTA Demand Meter</b>	100	3 Split CTs	3K24D-01D
	200	3 Split CTs	3K24D-02D
	400	3 Split CTs	3K24D-04D
	800	3 Split CTs	3K24D-08D
	1600	3 Split CTs	3K24D-16D
	3000	3 Split CTs	3K24D-30D
	5000	3 Split CTs	3K24D-50D
<b>480V 3PH 3W DELTA Demand Meter</b>	<b>100</b>	<b>3 Split CTs</b>	<b>3K48D-01D</b>
	200	3 Split CTs	3K48D-02D
	400	3 Split CTs	3K48D-04D
	800	3 Split CTs	3K48D-08D
	1600	3 Split CTs	3K48D-16D
	3000	3 Split CTs	3K48D-30D
	5000	3 Split CTs	3K48D-50D

#### OUTDOOR ENCLOSURE

VOLTAGE	AMPS	CTS INCLUDED	CAT. NO.
<b>120/208V 3PH 4W WYE Demand Meter</b>	100	3 Split CTs	3O208-01D
	200	3 Split CTs	3O208-02D
	400	3 Split CTs	3O208-04D
	800	3 Split CTs	3O208-08D
	1600	3 Split CTs	3O208-16D
	3000	3 Split CTs	3O208-30D
	5000	3 Split CTs	3O208-50D
<b>277/480V 3PH 4W WYE Demand Meter</b>	100	3 Split CTs	3O480-01D
	200	3 Split CTs	3O480-02D
	400	3 Split CTs	3O480-04D
	800	3 Split CTs	3O480-08D
	1600	3 Split CTs	3O480-16W
	3000	3 Split CTs	3O480-30D
	5000	3 Split CTs	3O480-50D
<b>347/600V 3PH 4W WYE Demand Meter</b>	100	3 Split CTs	3O600-01D
	200	3 Split CTs	3O600-02D
	400	3 Split CTs	3O600-04D
	800	3 Split CTs	3O600-08D
	1600	3 Split CTs	3O600-16D
	3000	3 Split CTs	3O600-30D
	5000	3 Split CTs	3O600-50D
<b>208 or 240V 3PH 4W DELTA Demand Meter</b>	100	3 Split CTs	3O24D-01D
	200	3 Split CTs	3O24D-02D
	400	3 Split CTs	3O24D-04D
	800	3 Split CTs	3O24D-08D
	1600	3 Split CTs	3O24D-16D
	3000	3 Split CTs	3O24D-30D
	5000	3 Split CTs	3O24D-50D
<b>480V 3PH 3W DELTA Demand Meter</b>	100	3 Split CTs	3O48D-01D
	200	3 Split CTs	3O48D-02D
	400	3 Split CTs	3O48D-04D
	800	3 Split CTs	3O48D-08D
	1600	3 Split CTs	3O48D-16D
	3000	3 Split CTs	3O48D-30D
	5000	3 Split CTs	3O48D-50D

### SERIES 3000 WITH BUILT-IN ADVANCED COMMUNICATION\*

•Modbus TCP •BACnet MS/TP •BACnet IP

\*Consult factory for availability



## 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 Current Transformers (CTs) for high-quality, long-term accuracy and reliability. Options include Split and Solid Core models. 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.

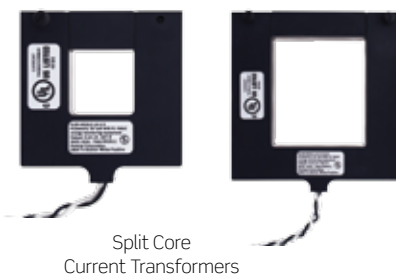
### ORDERING INFORMATION

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
200:0.1A	CDA02-L12	Solid Core, 0.72", Blue
200:0.1A	CDE02-R11	Solid Core, 0.67", Red
200:0.1A	CDA02-R12	Solid Core, 0.72", Red
200:0.1A	CDE02-K11	Solid Core, 0.67", Black
200:0.1A	CDE02-K12	Solid Core, 0.72", Black
200:0.1A	CDE02-L11	Solid Core, 0.67", Blue
<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-K24	Split Core, 1.5"
400:0.1A	CTD04-K23	Split Core, 1.4" x 1.4"
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"

AMP	CAT.	NO. DESCRIPTION
<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
200:0.1A	CDE02-211	CT Kit, 0.67", Red, Black
200:0.1A	CDE02-311	CT Kit, 0.67", 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

Leviton recommends solid core transformers (CTs) for revenue-grade accuracy. Our 100A and 200A color coded CTs assist with correct installation by indicating phase monitored. Split core CTs are also available upon request for applications where power cannot be interrupted during installation.



## 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 enclosure
- Available in NEMA 4X indoor/outdoor individual meter enclosures and Multiple Meter Units (MMUs) from 2 to 19 meters
- Certified to all applicable standards of ANSI C12.1
- Utilizes split and solid core current transformers (CTs) that are certified to all revenue grade accuracy standards
- Up to three sets of CTs per phase can be paralleled per meter for a distance of up to 500 feet
- Components of Mini Meter Kits are UL/cUL Listed: "6" models UL/cUL Listed Energy Usage Monitor per CCN FTRZ; "7" models UL/cUL Recognized Energy Usage Monitoring Equipment



Indoor  
Flush Mount  
Mini Meter



Outdoor  
Mini Meter

### ORDERING INFORMATION

#### Mini Meter Kits - Indoor Enclosure

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

VOLTAGE	AMPS	CTS INCLUDED	LEVITON P/N
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	LEVITON P/N
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

## 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)

**ORDERING INFORMATION****Mini Meter MMUs**

VOLTAGE	DESCRIPTION	LEVITON P/N
<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
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	LEVITON P/N
<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	2X409-CFG
	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

## Leviton System Architecture



NOTE: LAN equipment available from others



## 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.



EMB HubLite

## METERING COMMUNICATION 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.)



Energy Monitoring Hub

### ORDERING INFORMATION

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

## 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) 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

## 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

### ORDERING INFORMATION

CAT. NO.	DESCRIPTION
A8g11-000	High Density Pulse Module, 23 Inputs
A8332-000	Flex I/O Module, 8 User Selectable Inputs, 2 Relay Outputs
Rg120-500	ModHopper and Power Supply

## Energy Manager Monitoring Software

### Measure. Monitor. Manage. If You Don't Measure It, You Can't Manage It!

Energy monitoring and reporting is the key to measuring and managing energy efficiency and cost.

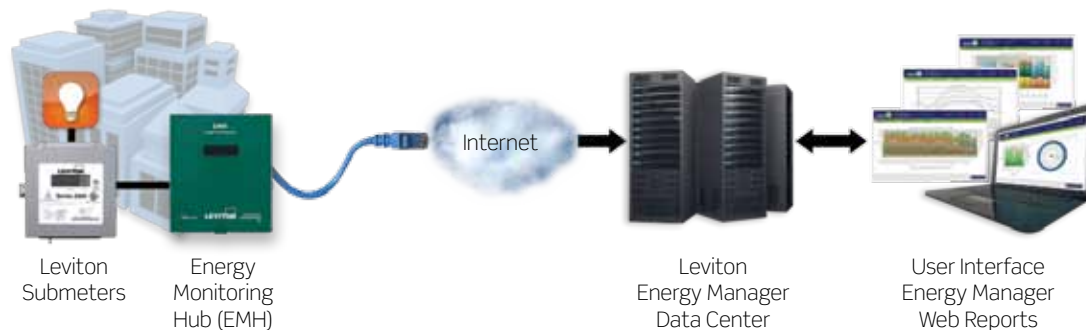
### Save Energy, Reduce Costs, Be Sustainable

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.

Decision makers everywhere are turning to Leviton Energy Manager to get the information they need to make smart energy choices. An advanced web based platform that provides real time data for your entire enterprise, Leviton Energy Manager gives you the most sophisticated tools to drive energy efficiencies, reduce operating costs and create more sustainable, environmentally sound facilities.

### How Leviton Energy Manager Works

#### Simple, Effective, Turn Key Solution to Monitor Energy in Real Time



- **Meters** record **real time** consumption data
- **Energy Monitoring Hub (EMH)** receives meter data and pushes it to Energy Manager data center
- **Data Center** stores, manages and reports data in **real time**
- **Energy Manager** software analyzes, formats and reports the data
- **User** logs into Energy Manager website and accesses data and reports

### Leviton Energy Manager is Packed with Features

#### Leviton Energy Manager Package

- Illustrates information in real time
- Load profiling and benchmarking
- Works with existing meters
- Easy to install and use
- Measure & validate
- Scalable to unlimited number of meters
- Configurable on-site system
- Instant alarm notification system

#### Energy Monitoring Hub (EMH)

- Easy to install
- Fully expandable for any sized application
- Accepts all meter types
- Compatible with Modbus metering
- Plug & Play - no programming needed
- Collects real time energy data in 15 minute intervals
- Automatically pushes data to Energy Manager data center

#### Energy Manager Monitoring Software

- Simplified, easy to use with intuitive drilldown functionality
- Instant productivity for all users
- All reports are no more than three clicks away!
  - 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 Monitoring Software

### Detailed Reporting in Just Three Clicks!



Daily Report



Energy Center Report



Annual Report



Carbon Emissions Report



Comparison Report



Multiple Meter Analysis Report

### Energy Manager Monitoring Software

CAT. NO.	DESCRIPTION
<b>YEAR ONE</b>	
LEMSB-000	Energy Manager Software - Base License Program - includes (8) control points and (1) 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
LEMSP-R00	Energy Manager Software - Additional Points License Renewal







**Leviton Manufacturing Co., Inc. Global Headquarters**

201 N. Service Rd. Melville, NY 11747-3138 • Tech Line: 1-800-824-3005 • FAX: 1-800-832-9538

**Leviton Manufacturing Co., Inc. Lighting & Energy Solutions**

20497 SW Teton Avenue, Tualatin, OR 97062 • Telephone: 1-800-736-6682 • FAX: 503-404-5594  
Tech Line: (6:00AM-4:00PM P.S.T. Monday-Friday): 1-800-959-6004

**Leviton Manufacturing of Canada, Ltd.**

165 Hymus Boulevard, Pointe Claire, Quebec H9R 1E9 • Telephone: 1-800-469-7890 • FAX: 1-800-563-1853

**Leviton S. de R.L. de C.V.**

Lago Tana 43, Mexico DF, Mexico CP 11290 • Tel. (+52) 55-5082-1040 • [www.leviton.com.mx](http://www.leviton.com.mx)

**Visit our Website at [www.leviton.com/les](http://www.leviton.com/les)**

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**1.800.561.8187**

**www.itm.com**

**information@itm.com**