

# VerifEye™ Series 8000 Meter

## Multiple Point High Density Smart Meter



### DEFINITION

The VerifEye™ Series 8000 Multiple Point Meters are designed to meter multi-tenant office buildings, medium-sized retail, institutional, multi-tenant residential and other high density applications. VerifEye Series 8000 meters provide twenty-four meter elements that can be configured as any combination of 1 phase, 2 phase or 3 phase meters or monitors.

VerifEye Series 8000 meters combine revenue-grade electrical submetering with building automation communications technology, complying with all regulatory electric safety and communications requirements and meeting stringent ANSI 0.5 Accuracy Class standards.

VerifEye Series 8000 meters transmit data over ModBus and BACnet connections to form an open protocol network.

**Please note:** Factory commissioning on the Series 8000 Meter is highly recommended as remote configuration of the meter is not an option offered by Leviton Technical Support.

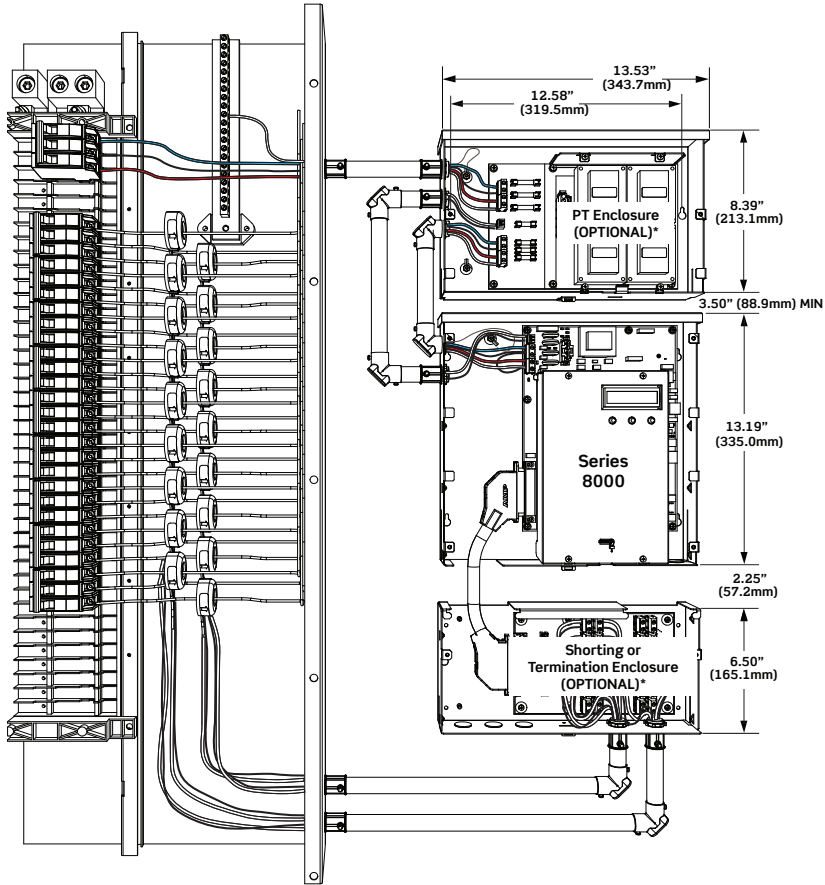
### FEATURES

- Building automation integration and tenant metering
- Multiple point meter—installation and hardware-savings
- Provides multiple electric loads in one device
- Monitors up to 24 current transformers—8 (3) phase, 12 (2) phase or 24 single phase loads
- 100 - 5,000 amp current transformers
- ModBus TCP, ModBus RTU (RS-485) and BACnet IP standard feature
- Measures kilowatt hours, kW demand, volts, amps
- Interval and net metering
- Configurable via Ethernet or simple ModBus RTU network to BMS or VerifEye software solutions for tenant billing or measurement & verification (M&V)
- Five year warranty
- Use Leviton 0.1A CTs with the Series 8000 Meter—see the Current Transformer Data Sheet for part numbers and details
- California Weights and Measures and Measurement Canada approved

VerifEye™ Series 8000 Meter

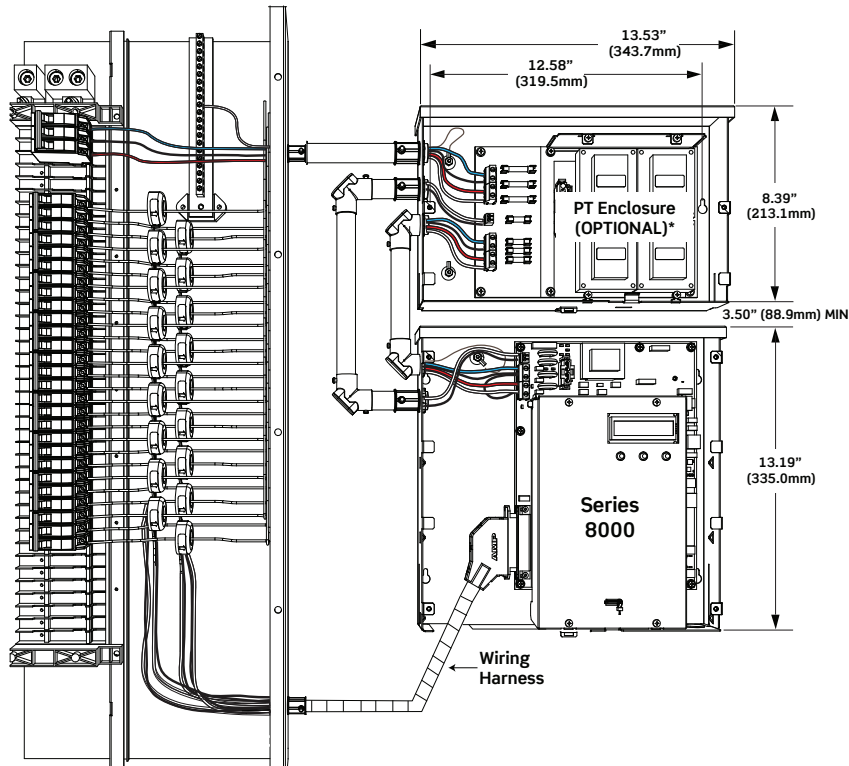
## PRODUCT DATA

### DIMENSIONS - TERMINAL ENCLOSURE



\* PT Enclosure and Shorting or Termination Enclosure are optional for select applications.

### DIMENSIONS - WIRING HARNESS



## SPECIFICATIONS

| COMMUNICATION                   |                                                                                                                               |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| Protocols                       | ModBus TCP/IP, DHCP, HTTP, PPP, SNMP, FTP, ModBus TCP, ModBus RTU (RS-485), BACnet IP                                         |
| VOLTAGE                         |                                                                                                                               |
| Voltage                         | 120/208V, 120/240V, 240/416V, 277/480V<br>(Higher voltage supported with potential transformers)                              |
| Tolerance                       | +/- 10%                                                                                                                       |
| Wattage                         | 60 Hz models                                                                                                                  |
| M&V                             |                                                                                                                               |
| Service Type                    | Single, Poly & 3-Phase + Neutral                                                                                              |
| Accuracy                        | ANSI C12.20 0.5 Accuracy Class, IEC 62053-22 Class 0.5S                                                                       |
| Measurements                    | Wh delivered and received, VARh delivered and received, VAh, Vrms, Irms                                                       |
| Demand Interval                 | 5 to 60 minutes                                                                                                               |
| Compatibility                   | 2 Pulse inputs to collect data from electric, water and/or gas meters                                                         |
| Ports                           | Single 10/100BASE-T Ethernet, RS-232                                                                                          |
| BAS Protocols                   | ModBus TCP, ModBus RTU (RS485), BACnet/IP                                                                                     |
| AMR File Type                   | Human Readable CSV file                                                                                                       |
| Frequency                       | Configurable; real-time, hourly, or daily reporting                                                                           |
| Pulse Inputs                    | 2 pulse in terminal blocks (2 wire) compatible with dry form A and solid state form A contacts                                |
| On-Board Memory                 | Non-volatile flash memory is unaffected by power outages; holds up to 2.4 years of meter data (1 hour intervals) for 20 years |
| On-Board Clock                  | Real-time with battery back-up (holds time up to 10 years)                                                                    |
| PHYSICAL                        |                                                                                                                               |
| Weight                          | 14 lbs (6.35kg), 21 lbs (9.52Kg)                                                                                              |
| Size                            | 13" (33cm) H x 11.8"(16.9") (30.5 cm) W x 2" (5cm) D                                                                          |
| Enclosure                       | For indoor use only                                                                                                           |
| Display                         | Liquid crystal with button scroll                                                                                             |
| ENVIRONMENT                     |                                                                                                                               |
| Operating Temperature           | -40 to 158° F (-40 to 70° C)                                                                                                  |
| Operating Humidity              | 0 to 90% non-condensing                                                                                                       |
| Altitude                        | 9843 ft (3000m) maximum                                                                                                       |
| Pollution                       | Degree 2                                                                                                                      |
| CODES & STANDARDS               |                                                                                                                               |
| Emissions                       | (EMC): FCC Part 15 Class A, ICES-003, IEC6100-4-5                                                                             |
| Safety                          | TUV and UL certified to IEC/EA/UL/CSA - 61010-1 2nd Edition CSA-C22.2 No. 61010-1-04                                          |
| Surge Power/ Telephone Lines    | ANSI/TIA968-A; 2002                                                                                                           |
| Accuracy & Billing              | ANSI/C12.20 0.5 Class                                                                                                         |
| California Weights and Measures | Approved                                                                                                                      |
| Measurement Canada              | Approved                                                                                                                      |

## PRODUCT DATA



### STEPS FOR ORDERING

1. Determine residential or commercial & industrial applications
2. Determine voltage
3. Determine phase requirements
3. Determine phase requirements
4. Determine number of meters
5. Choose wiring harness or terminal strips

### ORDERING INFORMATION

| VOLTAGE                                 | DESCRIPTION                                       | CAT. NO.  |
|-----------------------------------------|---------------------------------------------------|-----------|
| <b>RESIDENTIAL</b>                      |                                                   |           |
| 120/208/240V                            | Phase Config 3x2 with Wiring Harness              | S8120-032 |
| 120/208/240V                            | Phase Config 6x2 with Wiring Harness              | S8120-062 |
| 120/208/240V                            | Phase Config 9x2 with Wiring Harness              | S8120-092 |
| 120/208/240V                            | Phase Config 12x2 with Wiring Harness             | S8120-122 |
| 120/208V                                | Phase Config 8x3, 12x2, 24x1 with Terminal Strips | S8UTS-241 |
| 120/208V                                | Phase Config 8x3, 12x2, 24x1 with Wiring Harness  | S8UWH-241 |
| <b>COMMERCIAL &amp; INDUSTRIAL</b>      |                                                   |           |
| 277/480V                                | Phase Config 8x3, 12x2, 24x1 with Terminal Strips | 277TS-241 |
| 277/480V                                | Phase Config 8x3, 12x2, 24x1 with Wiring Harness  | 277WH-241 |
| <b>POTENTIAL TRANSFORMER (OPTIONAL)</b> |                                                   |           |
| 480V Delta                              | Delta PTs with Enclosure                          | S480V-011 |

**Note:** See the Current Transformers Data Sheet for 0.1A CT pairings for the Series 8000 Meter

### WIRING HARNESES vs. TERMINAL STRIPS

#### • Wiring Harness

S8UWH models are equipped with a 12-foot long, 24-pair wiring harness. One end of the harness is a connector which connects to the meter and the other end is a color-coded, unstripped wire. The unstripped side can be run into a panel and current transformers (CTs) can be spliced into the appropriate color-coded connection on the harness.

#### • Terminal Strips

S8UTS models include an additional enclosure and terminal strips for connecting each individual current transformer. Each CT is provided with two labeled screw terminals to land the wiring.

### Choosing Between a Wiring Harness and Terminal Strips

- Wiring harnesses offer a less labor intensive solution when all CTs are located in one panel like in a multi-family high rise project. This eliminates the need to extend CT wires out of the panel.
- Terminal strips are ideal for installers who prefer to land each wire and not use a color-coded wiring harness. For CTs located in different panels or different locations with a switchboard, terminal strips offer an easier solution with the ability to extend the current transformer wiring back to the meter location for termination. Terminal strip models also carry a slightly higher cost and should be considered with the project budget.