

VerifEye™ Series 7000 and 7100

Advanced 3-Phase Meter



71D03
Wall Mount



70D03
DIN Rail Mount



Solid Core CT



Rogowski
Rope CT



Split Core CT

Description

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 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.

The Series 7000 and 7100 supports all industry standard communications protocols including RS-485, BACnet MS/TP, BACnet IP, ModBus TCP and Ethernet for maximum flexibility. The integrated USB port may be used for local configuration.

The Series 7000 and 7100 monitors current, voltage, instantaneous power, demand and energy consumption of each monitored circuit, including the main feed. As a circuit approaches the user-configured threshold, alarm indicators are triggered preventing costly downtime from overloaded circuits or failed loads.

Applications

Use the Series 7000 and 7100 Meters in commercial and industrial applications for:

- Real-time power monitoring for:
 - Commercial
 - Industrial
 - Higher Education/Campuses
- Data centers
- Tenant submetering

Features

- Monitors a single 3-phase circuit
 - Configuration 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

NOTE: Factory commissioning on the Series 7000 and 7100 Meters is highly recommend as remote configuration of the meters is not an option offered by Leviton Technical Support.

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Capabilities

Measured Parameters*

- 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

* All parameters for each phase and system total

Accuracy

- 0.2% ANSI C12.20-2010 Class 0.2

Wide Range Power

- 90-346 Volts AC Line-to-Neutral
- 600V Line-to-Line, CAT III

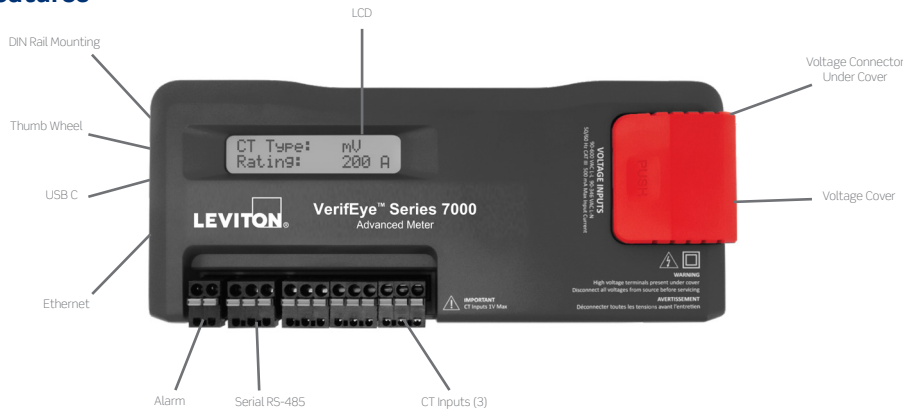
Highly Configurable

- 1P/2W, 2P/3W, 3P/4W (WYE), 3P/3W (Delta)

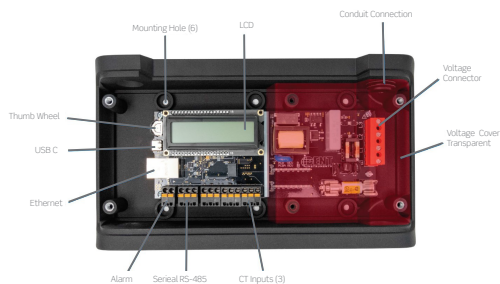
User Interface Options

- Meter front panel display unit
- Power Meter Viewer software with either USB direct to the meter or PC/Ethernet

Features

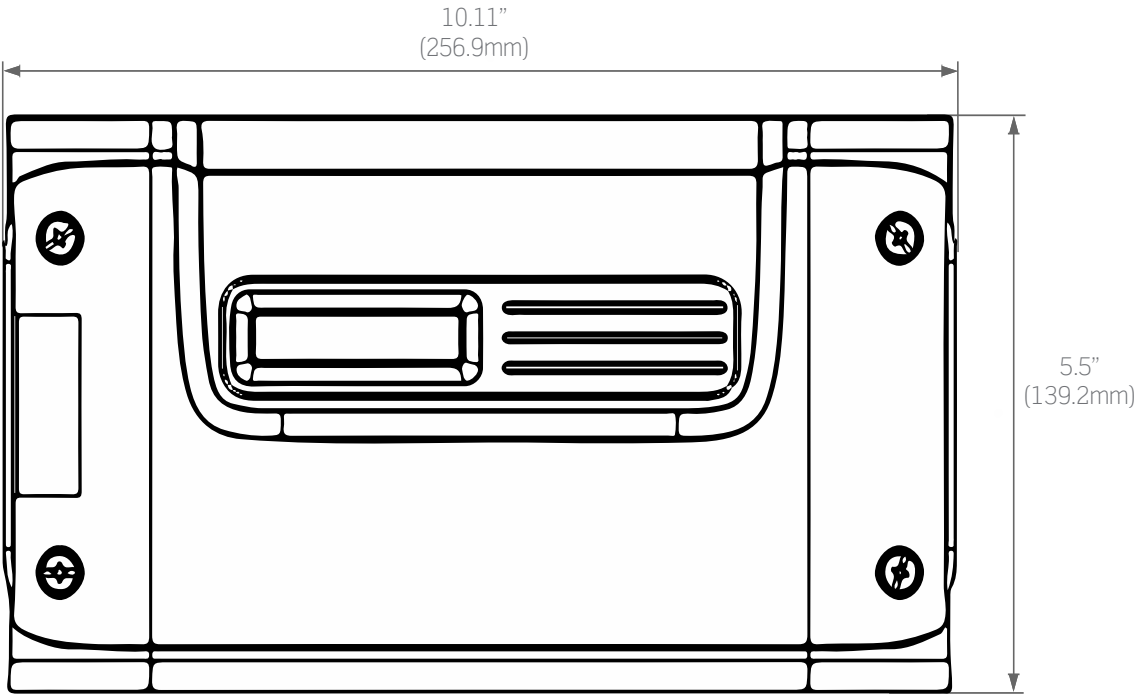


Series 7000 DIN Rail Mount

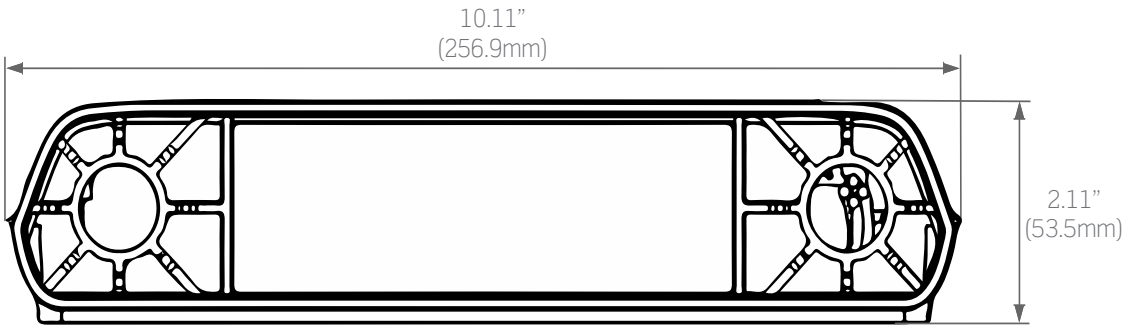


Series 7100 Wall Mount Enclosure

Dimensions



Series 7100 Wall Mount Enclosure Front

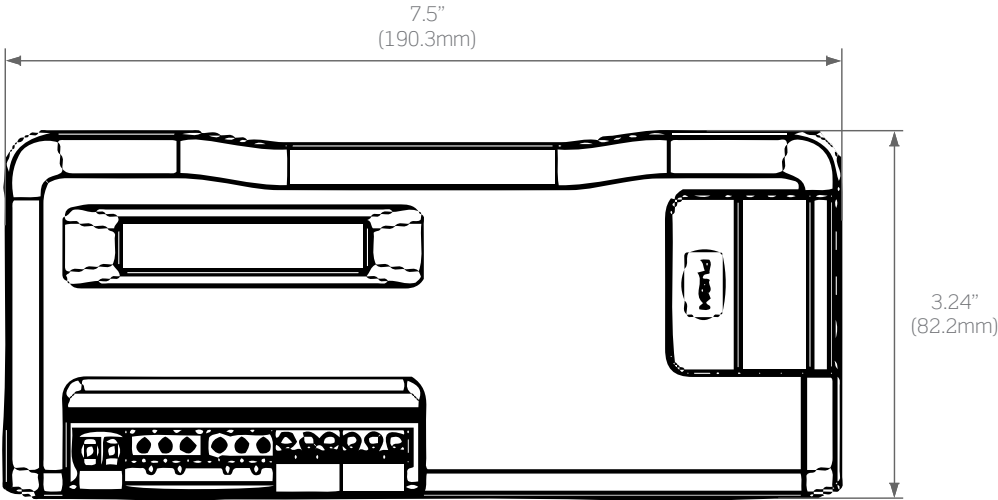


Series 7100 Wall Mount Enclosure Bottom

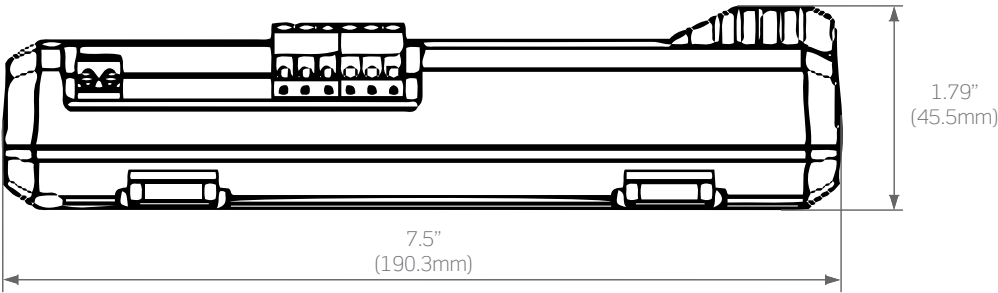
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Product Data
7xD03-000

Dimensions



Series 7000 DIN Rail Mount



Series 7000 DIN Rail Mount

Specifications

Panelboard Monitoring System	
Electrical	
Service Type	1P/2W, 2P/3W, 3P/4W, 3P/3W (Delta)
Power	From L1 Phase to L2 Phase, 90-600VAC RMS CAT III 50/60Hz, 500mA AC Max
AC Protection	0.5A Fuse 200kA interrupt capacity
Power Out	Unregulated 12VDC output, 200 mA, self-resetting fuse
Voltage Channels	90-346 Volts AC Line-to-Neutral, 600V Line-to-Line, CAT III
Current Channels	3 channels, 0.525 VAC max, 333 mV CTs, 0-4,000+ Amps depending on CT
Maximum Current Input	150% of current transducer rating (mV CTs) to maintain accuracy. Measure up to 4000A with Rogowski Coil CTs.
Measurement Type	True RMS using high-speed Digital Signal Processing (DSP) with continuous sampling
Line Frequency	50/60Hz
Mechanical	
Wire Connections	12-22 AWG 600 VAC, voltage connection must be #14 AWG or larger & 600 VAC rated
Mounting	Panel Mount/Enclosure
High Voltage Cover	IP30
PCBA Mounting	0.5" standoffs #6 (quantity 6, user supplied)
Communications	
Hardware	RS-485, Ethernet and USB (for configuration only)
Supported Protocols	ModBus, BACnet MS/TP, ModBus TCP or BACnet IP
Max Distance	ModBus RTU - 1200 meters (4000 ft) max, other network protocols follow standard network management practices
Data Bits	8
Parity	None, Even, Odd
Stop Bit	2,1
Environmental	
Operating Temperature	-4° to 140°F (-20° to 60°C) At -4°F, LCD display could be illegible, meter voltage at -4°F must exceed 100 VAC to power the meter
Operating Humidity	5-95% non-condensing
Codes & Standards	
Accuracy & Billing	ANSI C12.20 Class 0.2, NIST traceable calibration
Listing/Safety	CE EN 61000-6-4: Class A, UL Listed (Indoor enclosure version only), UL Recognized (Circuit board version only)
Other	
Wall Mount Dimensions	5.5" H x 10.11" W x 2.11" D (139.2mm x 256.9mm x 53.5mm)
DIN Rail Mount Dimensions	3.24" H x 7.5" W x 1.79" D (82.2mm x 190.3mm x 45.5mm)

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Ordering Information

Series 7000 and 7100 Advanced 3-Phase Meter		
Cat. No.	Description	
70D03-000	Series 7000 Advanced 3-Phase Meter (DIN Rail Mount)	
71D03-000	Series 7100 Advanced 3-Phase Meter (NEMA 1 Wall Mount Enclosure)	
Compatible CT Options*		
Cat. No.	Description	Accuracy
CDV01-K17	Solid Core CT, 333mV:100A, 0.75"	0.2%
CDV02-K17	Solid Core CT, 333mV:200A, 0.75"	0.2%
CTV5X-WA4	Split Core CT, 333mV:50A, 0.4"	0.5%
CTV01-KD0	Split Core CT, 333mV:100A, 1" Window	0.5%
CTV02-KD0	Split Core CT, 333mV:200A, 1" Window	0.5%
CTV04-KD1	Split Core CT, 333mV:400A, 1.25" Window	1.0%
CTV08-KG1	Split Core CT, 333mV:800A, 3.0"x3.5" Window	1.0%
CRV50-LR2	5-4000A Rogowski Coil CT 16", 131mV/1000A @ 60Hz, 109.2mV/1000A @ 50Hz	<0.2% accuracy
CRV50-LR4	5-4000A Rogowski Coil CT 24", 131mV/1000A @ 60Hz, 109.2mV/1000A @ 50Hz	<0.2% accuracy

*The Series 7000 Embedded Branch Circuit Monitors are compatible with 333mA CTs, sold separately.