

VerifEye™ Series 7000 and 7100 12 Circuit Advanced Branch Circuit Monitor



Series 7100



7000



Split Core CT



Rogowski
Rope CT



Solid Core CT

DESCRIPTION

The VerifEye™ Series 7000 and 7100 12 Input Embedded Branch Circuit Monitors are an ideal fit for applications requiring more than a single, three-phase meter, but less than the full capacity of the 48-circuit models of the Series 7000 and 7100 family. 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 hundreds 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 circuit in a panelboard, 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
 - Retail
 - Industrial
 - Higher Education/Campuses
- REIT management
- Data centers
- Tenant submetering

Leviton Manufacturing Co., Inc. Lighting & Controls

20497 SW Teton Avenue, Tualatin, OR 97062 tech line 800-959-6004

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FEATURES

- 12 individual CT inputs
- Inputs are configurable as follows:
 - 12 individual single pole meters-or-
 - 4 two pole meters-or-
 - 4 three pole meters
 - Consult Factory for any configurations
- One Voltage Reference Input-3PH/4W
- ANSI & IEC metering system accuracy including branch CTs
- Supports split core and Rogowski Coil 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
- User-configurable alarm thresholds register for improved load management
- Selectable phase orientation and number of circuits
- 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.

PRODUCT DATA



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 3

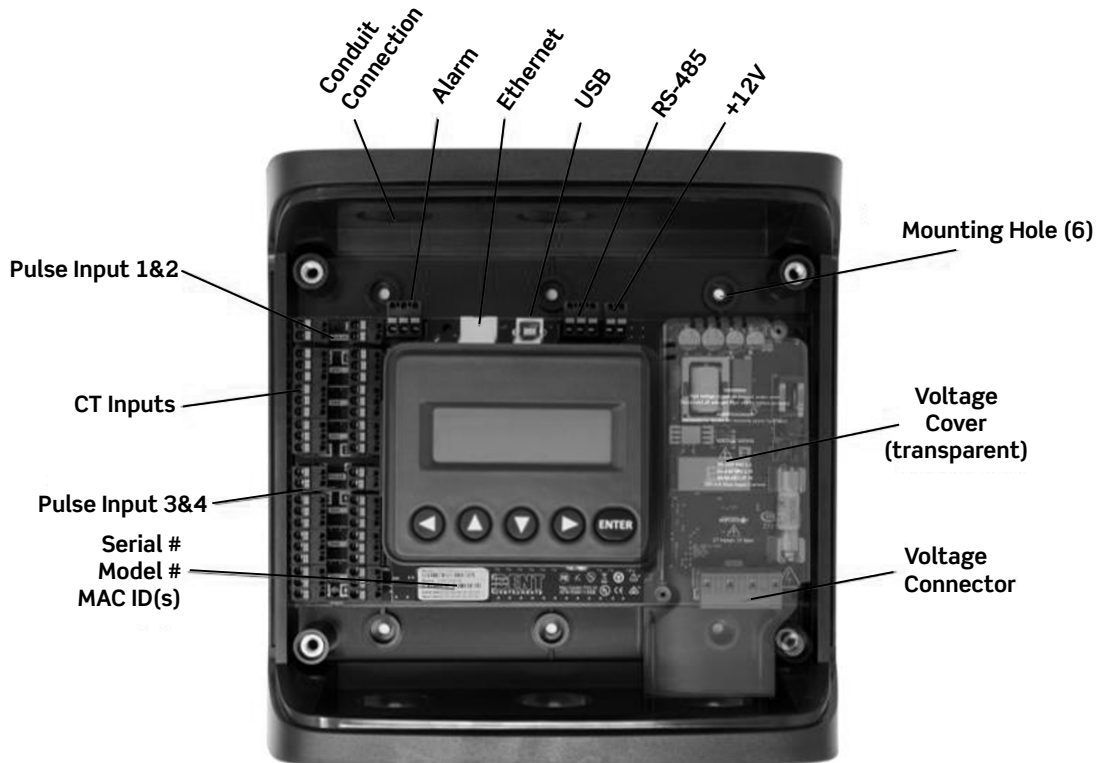
HIGHLY CONFIGURABLE

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

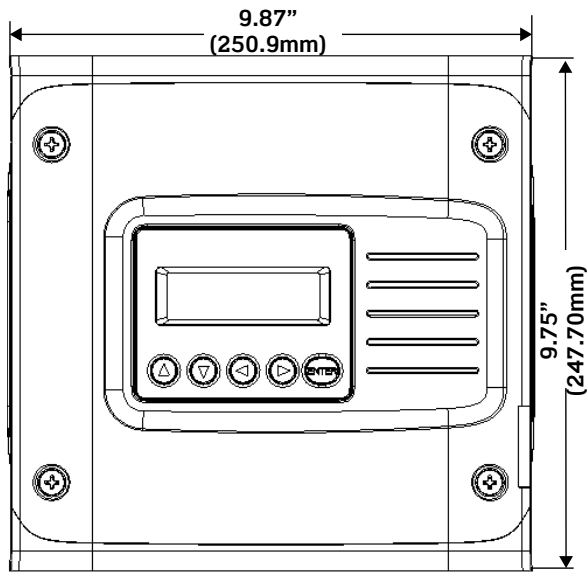
USER INTERFACE OPTIONS

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

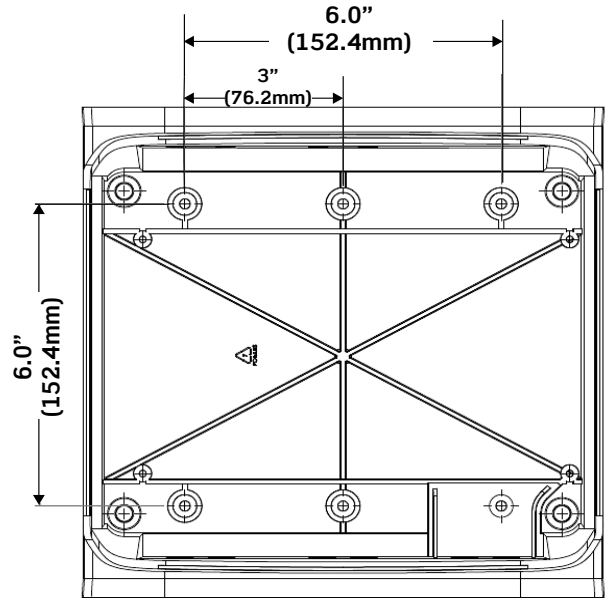
PANEL FEATURES



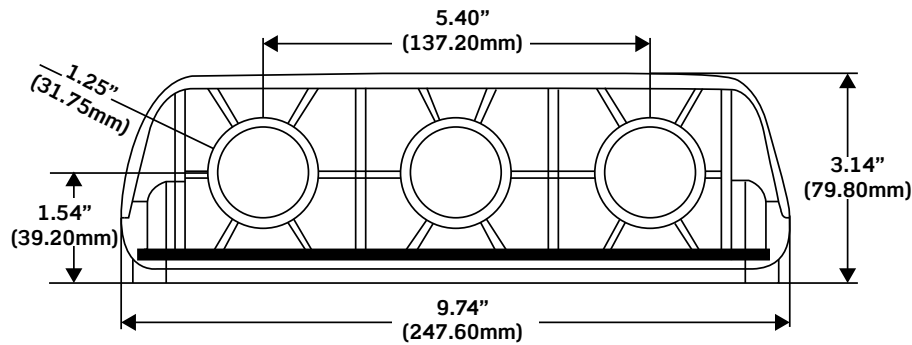
DIMENSIONS



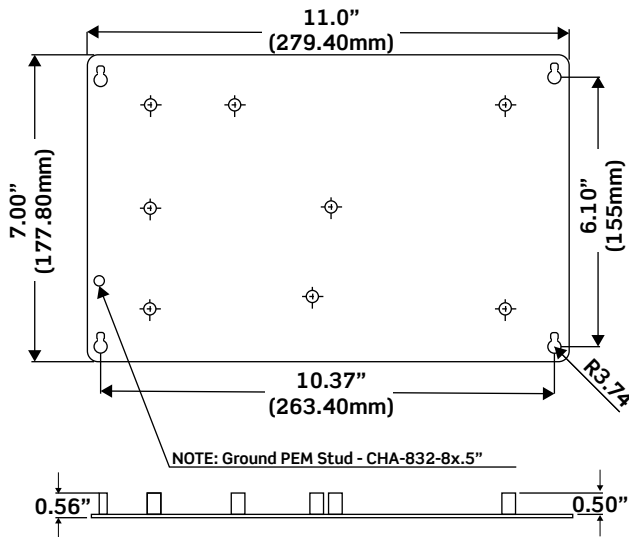
Series 7100 Enclosure Front



Series 7100 Enclosure Back



Series 7100 Enclosure Bottom



Series 7000 Embedded
(Panel Mount)

PRODUCT DATA



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 3 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 3
Current Channels	12 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

Enclosure Dimensions	9.75" H x 9.87" W x 3.14" D (247.70mm x 250.90mm x 79.80mm)
Panel Mount Dimensions	7.00 x 11.0 x 3.14 (177.8 x 279 x 79.8 mm)

ORDERING INFORMATION

CAT. NO.		DESCRIPTION
70D12-000		Series 7000 Embedded Branch Circuit Monitor Platform, 12 inputs with display
70N12-000		Series 7000 Embedded Branch Circuit Monitor Platform, 12 inputs, no display
71D12-000		Series 7100 Branch Circuit Monitor, 12 Inputs with display, NEMA 1 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%
CRV50-LR4	5-4000A Rogowski Coil CT 24", 131mV/1000A @ 60Hz, 109.2mV/1000A @ 50Hz	<0.2%

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

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