Series 3500 Meter Kits with Ethernet Communications

Indoor

Outdoor

DEFINITION

The Leviton Series 3500 Meter is a revenue-grade kWh electrical meter featuring Time of Use (TOU) meter readings, per-phase meter data, and a user-friendly LCD display. The Series 3500 Meter is designed for use on both 3-phase, 3-wire (Delta) and 3-phase, 4-wire (WYE) circuits, and features multi-function universal voltage.

The Leviton Series 3500 Meter is a highly accurate, 0.5% accuracy class kWh/demand meter. Offering a full range of electrical parameter measurement—kVA and kVAR, PF, per phase voltage, etc., this meter is ideally suited to commercial and industrial applications where advanced communications protocols are demanded. As an Ethernet-enabled product, the Series 3500 meter can be configured for Modbus TCP/IP for easy integration into existing Modbus networks. The meter can also be configured for BACNet IP to meet the requirements of today's Direct Digital Control based Building Automation Systems. In addition to the advanced protocols, the Series 3500 Meter comes standard with an Isolated Pulse output as an additional communication capability.

A highly accurate, multi-function smart meter, the Leviton Series 3500 Meter offers seamless integration into the advanced building control and management systems in today's market.

APPLICATIONS

Use Series 3500 Meters in commercial, institutional, industrial and government applications for:

- Load profiling and benchmarking
- AMR/BAS/BMS/EMS integration
- Usage aggregation
- Tenant cost allocation
- Measurement and verification
- Energy conservation and cost reduction
- Green building initiatives and Government mandates

Series 3500 Multi-Function Ethernet Meter Kits

LEVITON

Current Transformers

Submetering Solutions for Accurate Measurement & Verification

CDExx/CDAxx CTDxx CTCxx CTV01/02 CTV04/08 CRV50

DEFINITION

Leviton Current Transformers (CTs) support our full line of VerifEye™ revenue-grade meters and help meet all measurement and verification-based opportunities—including smart metering and LEED rating achievement. Designed as part of a simple and effective process for accurately capturing measurements of power consumption, CTs are easy to specify and install for new construction and retrofits.

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. CTs come as solid core standard for high-quality, long-term accuracy and reliability. Solid core CTs deliver +/-0.3% accuracy. Split core and Rogowki Coil CTs deliver +/-1.0% accuracy. 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. Leviton CTs are UL and cUL listed devices.

SOLID CORE

Leviton solid core CTs are cost effective and less susceptible to damage during installation. Solid core CTs slip over power lines to measure the electrical current flowing through the line. The CT "secondary" wires connect to the meter facilitating power and energy calculations. They are compact and cost effective. Solid core CTs are accurate (0.3% maximum error). For installation, power must be de-energized and the circuit opened in order to slip the CT over the power line.

SPLIT CORE

Split core CTs can be disassembled or 'split' into halves eliminating the need to turn power off and open the circuit during installation. This time-saving installation is ideal for critical loads that cannot be disconnected. Split core CTs close securely for fast, precise installation with no need for time-consuming tie wraps and no worries about improper seating or core half separation.

- Indoor type for measurement category Class IV, accessory equipment for energy meters
- Designed to meet the requirements of UL916 plus CSA C22.2 No. 61010-1
- Suitable for installation on 600V uninsulated bus duct

ROGOWSKI COIL

Rogowski Coil CTs are flexible rope style CTs with high amperage ranges from 20-5000A. The coil opens at the connector junction for fast and easy installation into an existing cable or bus bar. The Rogowski Coil's flexible core is ideal for tight enclosures and odd-sized conductors with three length options: 12", 18" and 24". Rogoski Coil CTs are for use with VerifEye Series 4000 Industrial ModBus Meter Kits only.

APPLICATIONS

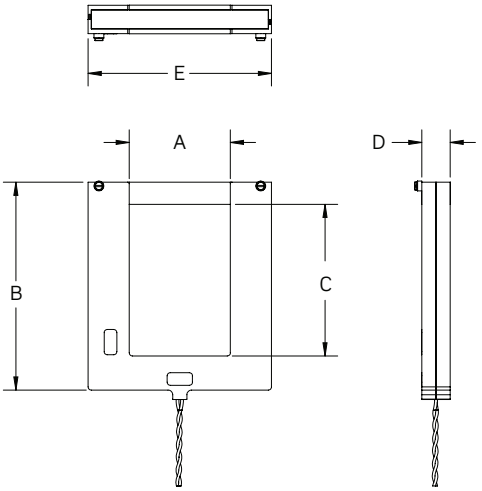
Use current transformers in commercial, institutional, industrial and government applications to support:

- Load profiling and benchmarking
- AMR/BAS/BMS/EMS integration
- Power quality analysis
- Usage aggregation
- Tenant cost allocation
- Measurement and verification
- Net metering
- Energy conservation and cost reduction
- Green building initiatives and government mandates

LEVITON®

DIMENSIONAL DIAGRAMS

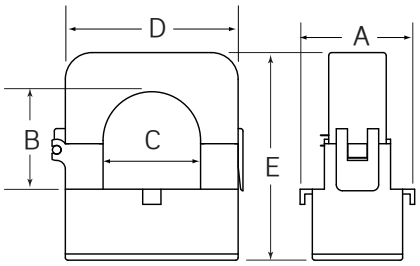
SPLIT CORE—FOR USE WITH SERIES 1000, 2000, 3500, 8000 METERS AND SERIES 2000 MULTIPLE METER UNITS (MMUs) ONLY



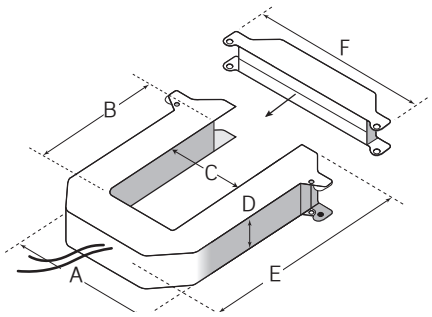
SPLIT CORE—FOR USE WITH SERIES 1000, 2000, 3500, 8000 METERS AND SERIES 2000 MULTIPLE METER UNITS (MMUs) ONLY

CT Size	A	B	C	D	E
100:0.1A	0.75" (19.05mm)	2.53" (64.16mm)	0.75" (19.05mm)	0.95" (24.13mm)	2.58" (65.53mm)
200:0.1A	1.00" (25.4mm)	2.86" (72.64mm)	1.00" (25.4mm)	0.75" (19.05mm)	2.75" (69.85mm)
400:0.1A	1.50" (38.1mm)	3.31" (84.07mm)	1.50" (38.1mm)	1.07" (27.18mm)	3.74" (95mm)
800:0.1A	3.00" (76.2mm)	5.38" (136.65mm)	3.50" (88.9mm)	1.25" (31.75mm)	5.39" (136.91mm)
1200:0.1A	4.00" (101.6mm)	8.23" (209.04mm)	6.00" (152.4mm)	1.12" (28.45mm)	7.25" (184.15mm)
1600:0.1A	4.00" (101.6mm)	8.23" (209.04mm)	6.00" (152.4mm)	1.12" (28.45mm)	7.25" (184.15mm)
3000:0.1A	5.00" (127mm)	9.86" (250.44mm)	7.00" (177.8mm)	1.44" (36.58mm)	8.44" (214.38mm)
5000:0.1A	5.00" (127mm)	9.86" (250.44mm)	7.00" (177.8mm)	1.44" (36.58mm)	8.44" 214.38mm)

SPLIT CORE—FOR USE WITH EMH+ AND SERIES 4000 & 4100 INDUSTRIAL MODBUS METER KITS ONLY



100 & 200A



400 & 800A

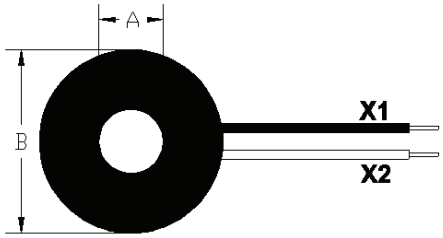
SPLIT CORE—FOR USE WITH EMH+ AND SERIES 4000 & 4100 INDUSTRIAL MODBUS METER KITS ONLY

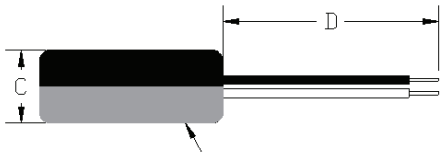
CT Size	A	B	C	D	E	F
100:0.333V	1.5" (38.10mm)	0.8" (20.32mm)	0.7" (17.78mm)	1.6" (40.64mm)	2.1" (53.34mm)	-
200:0.333V	1.5" (38.10mm)	1.25" (31.75mm)	1.25" (31.75mm)	2.25" (57.15mm)	2.8" (71.12mm)	-
400:0.333V & 800:0.333V	4.9" (124.46mm)	2.29" (58.16mm)	2.25" (63.5mm)	1.2" (30.48mm)	5.2" (132.08mm)	6.0" (152.40mm)

PRODUCT DATA

DIMENSIONAL DIAGRAMS

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



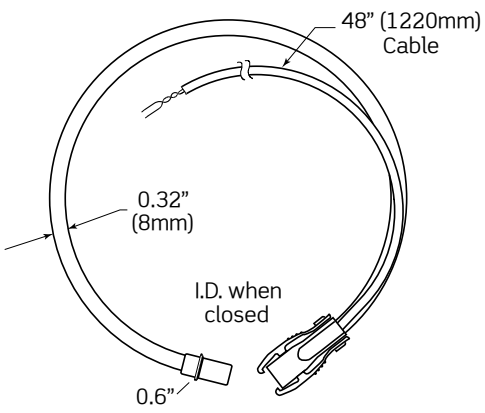


SOLID CORE—FOR USE WITH SERIES 8000 METERS, MINI METERS AND MMUs ONLY

CT Size	A	B	C	D
100:0.1A & 200:0.1A 0.67"	0.67" (17mm)	1.65" (42mm)	0.71" (18mm)	48.00" (1219mm)
100:0.1A & 200:0.1A 0.72"	0.72" (18.3mm)	2.06" (52.3mm)	0.82" (20.8mm)	48.00" (1219mm)
400:0.1A 1.5"	1.50" (38.1mm)	3.60" (76.2mm)	1.38" (34.9mm)	48.00" (1219mm)

NOTE: Lead lengths may be extended up to 500'. Consult factory for details

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



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

LENGTH	INSIDE DIAMETER WITH CLOSED CONNECTOR
12" (305mm)	3.85" (98mm)
18" (458mm)	5.75" (147mm)
24" (610mm)	7.65" (195mm)

LEVITON®

ORDERING INFORMATION

NOTE: Meters sold separately

AMP	CAT. NO.	DESCRIPTION
SINGLES		
SOLID CORE—FOR USE WITH SERIES 8000 METERS, MINI METERS AND MMUs ONLY		
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
100:0.1A	CDA01-K12	Solid Core, 0.72", Black
100:0.1A	CDA01-L12	Solid Core, 0.72", Blue
100:0.1A	CDA01-R12	Solid Core, 0.72", Red
200:0.1A	CDE02-K11	Solid Core, 0.67", Black
200:0.1A	CDE02-L11	Solid Core, 0.67", Blue
200:0.1A	CDE02-R11	Solid Core, 0.67", Red
200:0.1A	CDA02-K12	Solid Core, 0.72", Black
200:0.1A	CDA02-L12	Solid Core, 0.72", Blue
200.0.1A	CDA02-R12	Solid Core, 0.72", Red
400:0.1A	CDF04-K24	Solid Core, 1.5", Black
SPLIT CORE—SERIES 1000, 2000, 3500 METERS, SERIES 8000 METERS AND SERIES 2000 (MMUs) ONLY		
100:0.1A	CTD01-K16	Split Core, .75" x .75"
200:0.1A	CTD02-K16	Split Core, 1" x 1"
400:0.1A	CTD04-K23	Split Core, 1.5", x 1.5"
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"
SPLIT CORE—FOR USE WITH EMH+ AND SERIES 4000 & 4100 INDUSTRIAL MODBUS METER KITS ONLY		
100:0.333V	CTV01-K21	Split Core, 1.6" x 2.1"
200:0.333V	CTV02-K21	Split Core, 2.2" x 2.8"
400:0.333V	CTV04-K40	Split Core, 6" x 5.2"
800:0.333V	CTV08-K40	Split Core, 6" x 5.2"
ROGOWSKI COIL—FOR USE WITH SERIES 4000 & 4100 INDUSTRIAL MODBUS METER KITS ONLY		
20-5000A	CRV50-K62	Rogowski Coil, 12"
20-5000A	CRV50-K93	Rogowski Coil, 18"
20-5000A	CRV50-KC2	Rogowski Coil, 24"

AMP	CAT. NO.	DESCRIPTION
KITS—FOR USE WITH MINI-METERS AND MMUs ONLY		
100:0.1A	CDE01-211	CT Kit, 0.67", Red, Black
100:0.1A	CDE01-311	CT Kit, 0.67", Blue, Red, Black
100:0.1A	CDA01-212	CT Kit, 0.72", Red, Black
100:0.1A	CDA01-312	CT Kit, 0.72", Blue, Red, Black
200:0.1A	CDE02-211	CT Kit, 0.67", Red, Black
200:0.1A	CDE02-311	CT Kit, .067", 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. Our 100-5,000A split core and 20-5000A Rogowski Coil CTs offer +/-1.0% accuracy.

The following products are also part of the Leviton line of VerifEye integrated metering solutions:

Series 1000 Meters
Series 2000 Meters
Series 3500 Meters
Series 4000 & 4100 Industrial ModBus Meter Kits
Series 8000 Meters
EMH+ Integrated Meter & Hub
Mini Meters
Multiple Meter Units (MMUs)
Energy Monitoring Software and Hardware

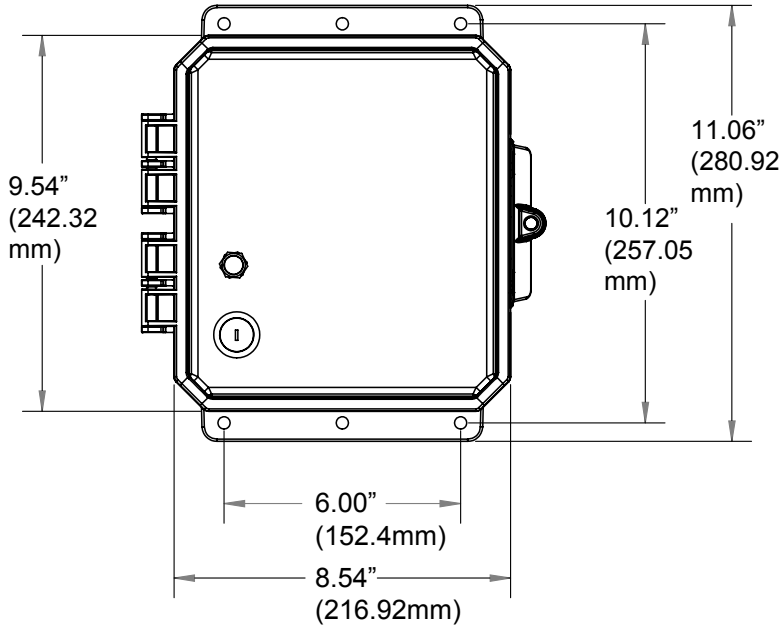
PRODUCT DATA

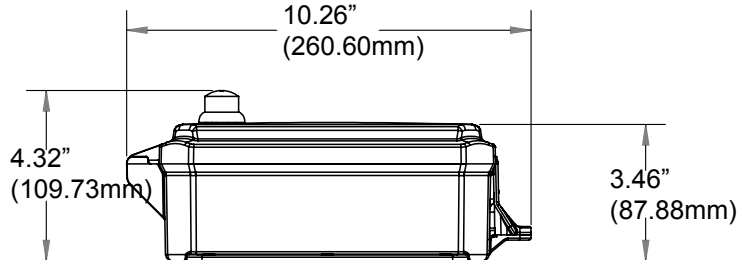
FEATURES
- Revenue grade accuracy: 0.5% accuracy class
- Large LCD display with scroll feature
- Indoor JIC steel and outdoor (NEMA 4X) enclosure options
- Up to three sets of CTs paralleled with no multipliers
- Use with split core or solid core CTs
- Installation diagnostics
- Low voltage detection
- Real time clock with battery back up for TOU reading
- UL and cUL listed energy usage monitor per CCN FTRZ

COMMUNICATIONS
- Modbus TCP/IP or BACnet IP
- Isolated pulse output

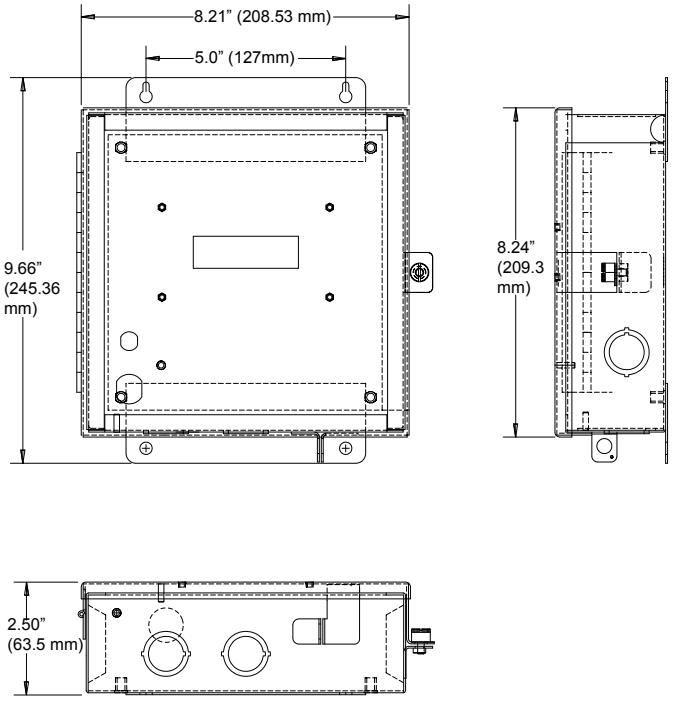
MEASURED PARAMETERS
- Total Meter
  - kWh/kW
  - kVAh
  - kVA and kVAR
  - Power Factor
  - Line Frequency
  - Voltage L-L
- Per Phase
  - Voltage L-N
  - Current
  - Watts
  - VA, VAR
  - Power Factor

DIMENSIONS
SERIES 3500 OUTDOOR ENCLOSURE





DIMENSIONS
SERIES 3500 INDOOR ENCLOSURE



SPECIFICATIONS

ELECTRICAL		
	NO NEUTRAL	**NEUTRAL**
Input Configurations	2PH 2W 208VAC 2PH 2W 480VAC 3PH 3W 240VAC 3PH 3W 480VAC	2PH 3W 120/208VAC 3PH 4W 120/208VAC 3PH 4W 240VAC Grounded Delta 3Ph 4W 277/480VAC 3PH 4W 480VAC Grounded Delta
Supply Voltage Range (Line 1 to Line 2)	177-552VAC	
Maximum Input Power	10.2 VA Max	
Maximum Rated Current	Primary: Max Rated Current +10% Secondary: 0.11A	
Line Frequency	60Hz	
Power Factor Range	0.5 to 1.0 leading or lagging	
Accuracy*	kWh: Meter shall meet or exceed ANSI C12.1 and C12.20(0.5) All other parameters: +/- 1% of reading or registration	
Meter Operating Temperature Range	-22° to 140°F (-30°C to 60°C)	
Display Operating Temperature Range	-4°F to 122°F (-20°C to 50°C)	
TERMINAL BLOCKS		
Voltage Inputs	14AWG, 12 in-lb of torque maximum	
Current Transformer Inputs, Pulse & RS485 Outputs	14-18AWG, 4.4 in-lb of torque maximum	

LEVITON®

ORDERING KEY - KITS (CURRENT TRANSFORMERS INCLUDED)

3 □ U M T - □ □ M

KIT TYPE

K = Indoor
O = Outdoor
NEMA 4X

AMPERAGE RATING & CT TYPE

01 = 100A Split Core
02 = 200A Split Core
04 = 400A Split Core
08 = 800A Split Core
16 = 1600A Split Core
30 = 3000A Split Core
50 = 5000A Split Core
1S = 100A SOLID Core
2S = 200A SOLID Core
4S = 400A SOLID Core

ORDERING KEY - INDIVIDUAL METERS (CURRENT TRANSFORMERS SOLD SEPARATELY)

3 □ U M T - □ □ M

KIT TYPE

N = Indoor
R = Outdoor
NEMA 4X

AMPERAGE RATING

01 = 100A
02 = 200A
04 = 400A
08 = 800A
16 = 1600A
30 = 3000A
50 = 5000A