

VerifEye™ Series 4000 0.2% Accurate Industrial ModBus Meter Kits



DESCRIPTION

The VerifEye™ Series 4000 Industrial ModBus Meter Kits are revenue-grade (ANSI 12.20 Class 0.2%) kWh electrical meters. The device combines exceptional performance and easy installation for a cost-effective energy monitoring solution.

The VerifEye Series 4000 Industrial ModBus Meter Kits are available in standalone DIN Rail Mount or NEMA 4X Enclosure, 3-phase, advanced communication meter kits with split core or flexible rope-style Rogowski Current Transformers (CTs) for compact or irregular shaped conductors. Combinations of serial communication, pulse output and phase alarms are provided to suit a wide variety of applications.

FEATURES

- Industrial temperature range: -22 to 158°F (-30 to 70°C)
- 50/60 Hz
- 90-600V versatility including 347V (L-N) and 600V (L-L)
- Resettable kWh feature meets requirements for Title 24 and Seattle Energy Code Rogowski CT Options (20-5000A)
- DIN rail mount
- Five year warranty

APPLICATIONS

Use the VerifEye Series 4000 Industrial ModBus Meter Kits in commercial, institutional, industrial and government applications for:

- Energy monitoring for AMR/BAS/BMS/EMS systems
- Tenant cost allocation
- Energy conservation and cost reduction
- Green building initiatives and government mandates
- Measurement and verification
- Load profiling and benchmarking

PRODUCT DATA

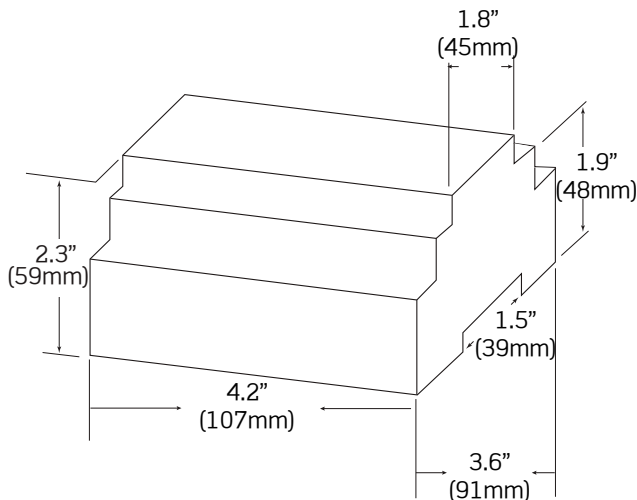
FEATURES

- DIN Rail mount for easy installation
- Optional outdoor NEMA 4X enclosure
- Options for 100, 200, 400, and 800A split core CTs and 12", 18", and 24" Rogowski CTs (20-5000A)
- ANSI 12.20 0.2% accuracy, IEC 62053-22 Class 0.5S
- Real energy output and phase loss alarm output
- 90-600VA versatility with fewer models to stock
- One device serves multiple locations
- User-enabled password protection to protect meter from tampering
- Bright, backlit LCD for installation in dark areas and viewing real time data
- System integration via ModBus RTU - RS-485 2-wire with shield
- CSI approved for California Solar Initiative
- cULus rated
- CE compliant

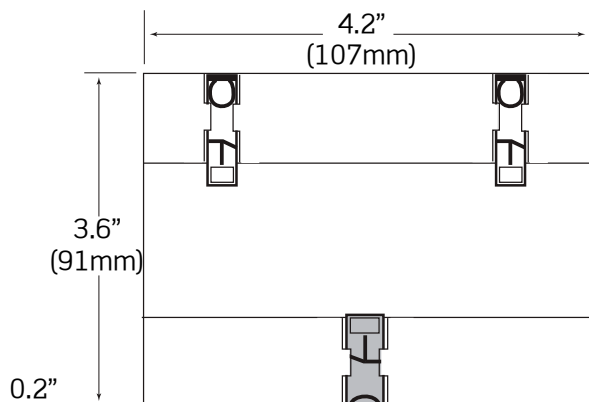
MEASURED PARAMETERS

- kW
- kVA and kVAR
- Power factor: 3 phase average & per phase
- Present power demand: Real (kW), reactive (kVAR) and apparent (kVA)
- Current (3-phase average and per phase)
- Voltage L-L and L-N
- Frequency
- ANSI C12.20 0.2% accuracy, IEC 62053-22 Class 0.5S
- Accumulated net energy: real (kWh), reactive (kVARh), and apparent (kVAh)
- Accumulated real energy by phase (kWh)
- Demand interval configuration: fixed or rolling block, external sync to communication

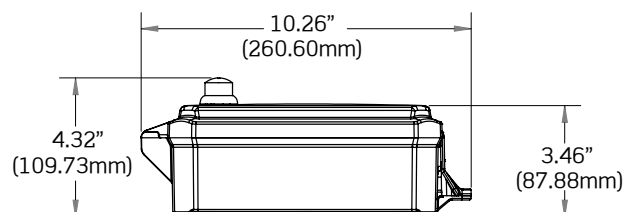
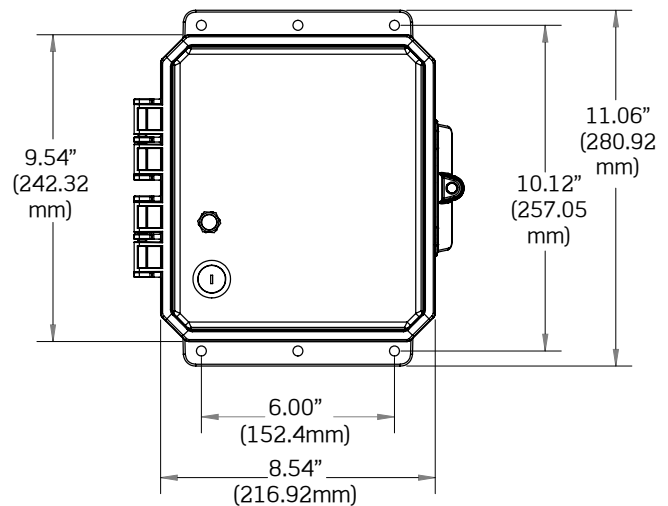
DIMENSIONS - DIN RAIL



MOUNTING DIAGRAM



DIMENSIONS - OUTDOOR ENCLOSURE



SPECIFICATIONS

INPUTS	
Control Power, AC	50/60 Hz, 5VA max, 90V min UL Maximums: 600V L-L (347V L-N), CE Maximum: 300V L-N
Control Power, DC	3W max, UL and CE: 125 to 300VDC (external DC current limiting required)
Input Voltage	UL: 90V L-N to 600V L-L CE: 90V L-N to 300V L-N
Input Current Scaling	5A to 32,000A
Input Range	0 to 0.333V or 0 to 1V (selectable) CTs must be rated for use with Class 1 voltage inputs Split Core CTs: 100, 200, 400, 800A Rogowski CTs: (20-5000A) 12", 18", and 24" lengths available
OUTPUTS	
Real Energy Pulse	N.O. static
Alarm Contacts	N.C. static
Serial Port	RS-485 2-wire ModBus RTU (1200 baud to 38.4 kbaud)
MECHANICAL	
Mounting	DIN rail or NEMA 4X outdoor enclosures
ENVIRONMENTAL	
Altitude	9843ft <3000m) maximum
Operating Temperature	-22 to 158°F (-30 to 70°C)
Storage Temperature	-40 to 185°F (-40 to 85°C)
Operating Humidity	<95% to RH non-condensing
Pollution	Degree 2
CODES & STANDARDS	
Safety	UL508 (Open Type Device), cUL, EN61010-1
Accuracy & Billing	ANSI/C12.20 0.2 Class
Listings	CE compliant, CSI approval for California Solar Initiative, cULus rated

ORDERING KEY

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O - Outdoor
K - DIN Rail

MR - ModBus

01M - 100A Split Core
02M - 200A Split Core
04M - 400A Split Core
08M - 800A Split Core
R12 - 12" Rogowski
R18 - 18" Rogowski
R24 - 24" Rogowski

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ORDERING INFORMATION

INDOOR DIN RAIL MOUNT			
VOLTAGE	AMPS	CTS INCLUDED	CAT. NO.
Universal 3PH 3W/4W	100	Split Core CTs	4KUMR-01M
Universal 3PH 3W/4W	200	Split Core CTs	4KUMR-02M
Universal 3PH 3W/4W	400	Split Core CTs	4KUMR-04M
Universal 3PH 3W/4W	800	Split Core CTs	4KUMR-08M
Universal 3PH 3W/4W	20-5000	12" Rogowski Coil CTs	4KUMR-R12
Universal 3PH 3W/4W	20-5000	18" Rogowski Coil CTs	4KUMR-R18
Universal 3PH 3W/4W	20-5000	24" Rogowski Coil CTs	4KUMR-R24
STANDALONE METERS ONLY			
Universal 3PH 3W/4W	100, 200, 400, 800	Split Core CTs Only	4KUMR-00M
Universal 3PH 3W/4W	20-5000	Rogowski Coil CTs Only	4KUMR-00R
OUTDOOR NEMA ENCLOSURE			
VOLTAGE	AMPS	CTS INCLUDED	CAT. NO.
Universal 3PH 3W/4W	100	Split Core CTs	4OUMR-01M
Universal 3PH 3W/4W	200	Split Core CTs	4OUMR-02M
Universal 3PH 3W/4W	400	Split Core CTs	4OUMR-04M
Universal 3PH 3W/4W	800	Split Core CTs	4OUMR-08M
Universal 3PH 3W/4W	20-5000	12" Rogowski Coil CTs	4OUMR-R12
Universal 3PH 3W/4W	20-5000	18" Rogowski Coil CTs	4OUMR-R18
Universal 3PH 3W/4W	20-5000	24" Rogowski Coil CTs	4OUMR-R24
COMPONENTS			
AMPS	DESCRIPTION	CAT. NO.	
100	Split Core CTs	CTV01-K21	
200	Split Core CTs	CTV02-K21	
400	Split Core CTs	CTV04-K40	
800	Split Core CTs	CTV08-K40	
-	Fuse Pack, 1/2A, 600VAC, slow blow	CTV00-FK3	
20-5000	12" Rogowski Coil CTs	CRV50-K62	
20-5000	18" Rogowski Coil CTs	CRV50-K93	
20-5000	24" Rogowski Coil CTs	CRV50-KC2	

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