

## E5XXXA SERIES

Cost-Saving, Versatile Monitoring  
Solution with Associated E683x Rope Style CTs  
(Sold Separately)



E50xxxA/E51xxxA



E683x Series Rope CT  
(sold separately)

The E5xxxA Series DIN Rail Meter combines exceptional metering performance with a built-in integrator and power supply to deliver a cost-effective, easily installed solution for power monitoring applications. Multiple communication protocol options offer added flexibility for easy system integration.

E5xxxA devices work exclusively with Veris E683x Series rope CTs for fast connection. The rope style CTs allow convenient installation in tight spaces.

The data logging capability (E5xC3A and E5x5A) protects data in the event of a power or communications failure elsewhere in the system. Different devices in the series offer serial communication, pulse output, and phase alarms to suit a wide variety of applications.

### SPECIFICATIONS

| ACCURACY                                  |                                                                                                                    |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| Real Power & Energy<br>E5xxxA             | 0.5% (ANSI C12.20, IEC 62053-22 Class 0.5S)                                                                        |
| INPUTS                                    |                                                                                                                    |
| Control Power, AC                         | 50/60 Hz; 5 VA max.; 90 V min.; UL Maximums:<br>600 V <sub>L-L</sub> (347 V <sub>L-N</sub> ); CE Maximum: 300 VL-N |
| Control Power, DC                         | 3 W max.; UL and CE: 125 to 300 Vdc (external DC<br>current limiting required)                                     |
| Voltage Input                             | UL: 90 V <sub>L-N</sub> to 600 V <sub>L-L</sub> ; CE: 90 V <sub>L-N</sub> to 300 V <sub>L-N</sub>                  |
| Current Input<br>Scaling<br>Input Range   | 50 to 5000 A<br>E683x Series rope style CTs only (CTs must be rated for<br>connection to Class 1 voltage inputs)   |
| Pulse Inputs<br>(E5xHxA & E50FxA<br>only) | Contact inputs to pulse accumulators (one set with<br>E5xH2A & E50F2A; two sets with E5xH5A & E51F5A)*             |
| OUTPUTS                                   |                                                                                                                    |
| All Models<br>(except E5xHxA &<br>E50FxA) | Real Energy Pulse: N.O. static**;<br>Alarm contacts: N.C. static**                                                 |
| E50BxA                                    | Reactive energy pulse**                                                                                            |
| E5xCxA                                    | RS-485 2-wire Modbus RTU (1200 baud to 38.4 kbaud)                                                                 |

## Faster installation 0.5% accuracy

Integrator and power supply for the CTs are built into the meter... fewer devices to purchase and faster installation

ANSI C12.20 0.5% accuracy, IEC 62053-22 Class 0.5S on all E5xxxA...great for cost allocation

## Rope CTs

Versatile rope CTs allow convenient installation in tight spaces

## Easy installation

DIN rail or screw mounting options

## 400 to 5000A

Designed to work exclusively with E683x Series rope CTs which offer 1% accuracy from 50 to 5000 A... monitor a wide range of loads with breakers from 400 to 5000 A

## Multiple applications

Real energy output and phase loss alarm output on E50BxA and E5xCxA models...one device serves multiple applications

### APPLICATIONS

- Energy monitoring in building automation systems
- Renewable energy
- Energy management
- Commercial sub-metering
- Industrial monitoring
- Cost allocation

|        |                                                       |
|--------|-------------------------------------------------------|
| E5xHxA | RS-485 2-wire BACnet MS/TP (9600 baud to 115.2 kbaud) |
| E50FxA | 2-wire LON FT                                         |

### MECHANICAL

|          |                                 |
|----------|---------------------------------|
| Mounting | DIN rail or 3-point screw mount |
|----------|---------------------------------|

### ENVIRONMENTAL

|                      |                                                      |
|----------------------|------------------------------------------------------|
| Operating Temp Range | -30 to 70 °C (-22 to 158 °F)                         |
| Storage Temp Range   | -40 to 85 °C (-40 to 185 °F)                         |
| Humidity Range       | <95% RH non-condensing                               |
| Mounting Location    | Not suitable for wet locations. For indoor use only. |

### WARRANTY

|                  |         |
|------------------|---------|
| Limited Warranty | 5 years |
|------------------|---------|

### AGENCY APPROVALS

|                  |                                                           |
|------------------|-----------------------------------------------------------|
| Agency Approvals | UL 508, IEC/EN 61010-1, California CSI Solar, ANSI C12.20 |
|------------------|-----------------------------------------------------------|



\*10 kΩ Vac/dc to 4 to 10 Vdc.

\*\*30 Vac/dc, 100 mA max.

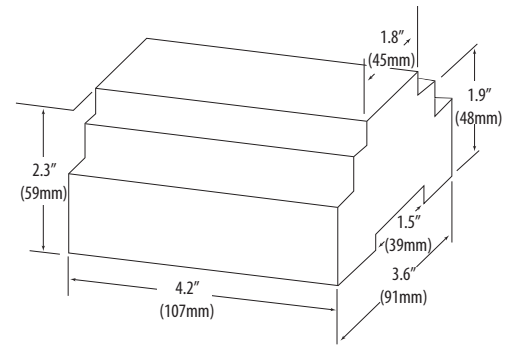
## ORDERING INFORMATION

|                                                                                                | E50B1A | E50C2A | E50C3A | E50F2A | E50F5A | E50H2A | E50H5A | E51C2A | E51C3A | E51H2A | E51H5A |
|------------------------------------------------------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>MEASUREMENT CAPABILITY - FULL DATA SET</b>                                                  |        |        |        |        |        |        |        |        |        |        |        |
| Bi-directional Energy Measurements                                                             |        |        |        |        |        |        |        |        |        |        |        |
| Power (3-phase total and per phase): Real (kW), Reactive (kVAR), and Apparent (kVA)            | •      | •      | •      | •      | •      | •      | •      | •      | •      | •      | •      |
| Power Factor: 3-phase average & per phase                                                      | •      | •      | •      | •      | •      | •      | •      | •      | •      | •      | •      |
| Present Power Demand: Real (kW), Reactive (kVAR), and Apparent (kVA)                           | •      | •      | •      | •      | •      | •      | •      | •      | •      | •      | •      |
| Import & Export totals of Present Power Demand: Real (kW), Reactive (kVAR), and Apparent (kVA) |        |        |        |        |        |        |        | •      | •      | •      | •      |
| Peak Power Demand: Real (kW), Reactive (kVAR), and Apparent (kVA)                              | •      | •      | •      | •      | •      | •      | •      | •      | •      | •      | •      |
| Current (3-phase average and per phase)                                                        | •      | •      | •      | •      | •      | •      | •      | •      | •      | •      | •      |
| Voltage: Line-Line and Line-Neutral (3-phase average and per phase)                            | •      | •      | •      | •      | •      | •      | •      | •      | •      | •      | •      |
| Frequency                                                                                      | •      | •      | •      | •      | •      | •      | •      | •      | •      | •      | •      |
| ANSI C12.20 0.5% accuracy, IEC 62053-22 Class 0.5S                                             | •      | •      | •      | •      | •      | •      | •      | •      | •      | •      | •      |
| Accumulated Net Energy: Real (kWh), Reactive (kVARh), and Apparent (kVAh)                      | •      | •      | •      | •      | •      | •      | •      | •      | •      | •      | •      |
| Accumulated Real Energy by phase (kWh)                                                         | •      | •      | •      | •      | •      | •      | •      | •      | •      | •      | •      |
| Import and Export Accumulators of Real and Apparent Energy                                     |        |        |        |        |        |        |        | •      | •      | •      | •      |
| Reactive Energy Accumulators by Quadrant (3-phase total and per phase)                         |        |        |        |        |        |        |        | •      | •      | •      | •      |
| Demand Interval Configuration: Fixed or Rolling Block                                          | •      | •      | •      | •      | •      | •      | •      | •      | •      | •      | •      |
| Demand Interval Configuration: External Sync to Comms                                          | •      | •      | •      | •      | •      | •      | •      | •      | •      | •      | •      |
| <b>DATA LOGGING</b>                                                                            |        |        |        |        |        |        |        |        |        |        |        |
| Data Logging: 10 16-Bit Configurable (can include Date/Time) Data Buffers                      |        |        | •      |        |        |        |        |        | •      |        |        |
| Data Logging: 3 Timestamped 32-Bit Configurable Data Buffers                                   |        |        |        |        |        | •      |        | •      |        |        | •      |
| Store up to 60 days of readings at 15-minute intervals                                         |        |        | •      |        |        | •      |        | •      |        |        | •      |
| <b>OUTPUTS</b>                                                                                 |        |        |        |        |        |        |        |        |        |        |        |
| Alarm Output (N.C.)                                                                            | •      | •      | •      | •      |        | •      |        | •      | •      | •      |        |
| 1 Pulse Output (N.O.)                                                                          |        | •      | •      |        |        |        |        |        | •      | •      |        |
| 2 Pulse Outputs (N.O.)                                                                         | •      |        |        |        |        |        |        |        |        |        |        |
| RS-485 Serial (Modbus RTU Protocol)                                                            |        | •      | •      |        |        |        |        |        | •      | •      |        |
| RS-485 Serial (BACnet MS/TP Protocol)                                                          |        |        |        |        |        | •      | •      |        |        | •      | •      |
| LON FT Serial (LonTalk Protocol)                                                               |        |        |        | •      | •      |        |        |        |        |        |        |
| <b>INPUTS</b>                                                                                  |        |        |        |        |        |        |        |        |        |        |        |
| 2 Pulse Contact Accumulator Inputs                                                             |        |        |        |        | •      |        | •      |        |        |        | •      |
| 1 Pulse Contact Accumulator Input                                                              |        |        |        | •      |        | •      |        |        |        | •      |        |

## REQUIRED CTS

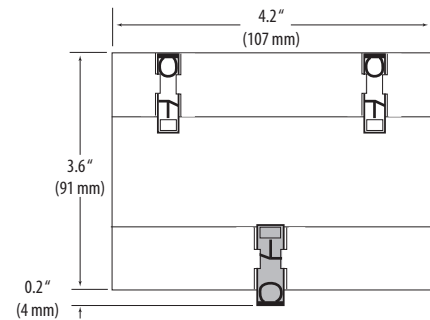
| MODEL    | DESCRIPTION                                             |
|----------|---------------------------------------------------------|
| E683C502 | Rogowski CT, 250 mm (9"), 600 V, 5 kA, U018 equivalent  |
| E683D502 | Rogowski CT, 300 mm (12"), 600 V, 5 kA, U018 equivalent |
| E683G502 | Rogowski CT, 460 mm (18"), 600 V, 5 kA, U018 equivalent |
| E683J502 | Rogowski CT, 600 mm (24"), 600 V, 5 kA, U018 equivalent |
| E683L502 | Rogowski CT, 900 mm (35"), 600 V, 5 kA, U018 equivalent |

## DIMENSIONAL DRAWING



## DIN MOUNT CONFIGURATION

Mounting Diagram



## SCREW MOUNT CONFIGURATION

Mounting Diagram

