

# EMX Advanced True RMS Energy Meter

BACnet & Modbus, Pulse  
Revenue grade metering (ANSI C12.20 Class 0.2 Standards)  
Monitor loads from 0.25-6000A & 90-600V  
Accurately measure harmonic loads

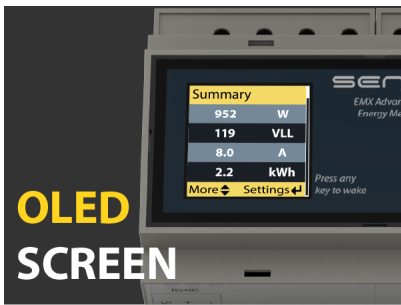


## DESCRIPTION

The EMX Advanced is the most user-friendly and quick installation True RMS energy meter on the market. Its line is powered with a color OLED screen and data-rich user interface, making setup as easy as L1, L2, L3. Equipped with both pulse and RS485 outputs, the EMX Advanced can connect to almost any metering or control device. Ideal for retrofits, the EMX accepts any 0.333V CT or standard metering Rogowski coil with no need for time-consuming and bulky integrators. Mixed or match loads or CT sizes!

## APPLICATIONS

- Energy Management and performance contracting
- Monitoring for commercial tenants
- Activity-based costing in commercial and industrial facilities
- Real-time power monitoring
- Load shedding
- Audits/temporary monitoring
- Distributed generation
- Great for data center energy meter sensing

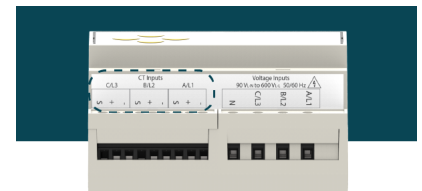


**OLED  
SCREEN**

*OLED screen for easy configuration*



*the most user-friendly and quick installation  
True RMS energy meter on the market*



**1-3 PHASE VOLTAGE  
90-600V**

*Self-powered with 1 to 3 phase voltage, 90-600V*



*Supports DIN rail mounting*



*Optional Nema 4X Enclosure with padlock*



*Works with any 0.333V CT or di-dt Rogowski coil*

## FEATURES

- NEW! Configuration App with [SenvaSync](#), plus download logged data!
- NEW! Real-time logging data
- OLED screen with user interface that streamlines the setup process
- Self-powered with 1 to 3 phase voltage, 90-600V
- Functions as three independent voltage/current power meters in one--mix and match CT sizes for multiple loads
- 2 pulse inputs for summing multiple meters or for general (configurable) pulse counting from any pulse meter - water, gas, steam, etc
- 2 pulse outputs for separately tracking positive and negative energy usage, additional power metrics or power quality alarms
- Provides accurate RMS (Root Mean Square) metering of harmonic loads
- One universal meter supports all metering CT options in the product family
- Supports mounting on PR30 (TS 35/F6) DIN rail

## ORDERING

### EMX Enclosure



#### Enclosure Options

EMX-ENC = Enclosure WITH Padlock

### Rogowski Current Transducers



See Metering Series Rogowski CT's page to order

PART #: CT-F(XX)

### Split Core Current Transducers



See Metering Series Split-Core CT's page to order

PART #: XH-SCT-(XXXX)

### Fuse Kit



Fuse Kit, 600V, 1/2A, 3 Phase

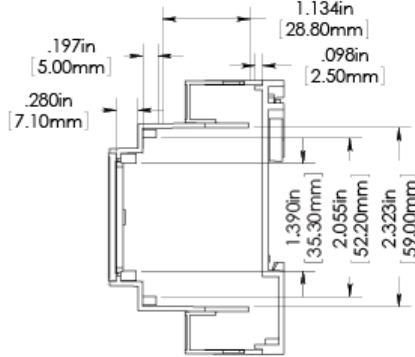
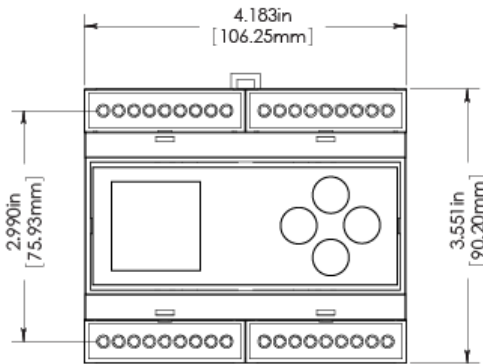
PART #: CVT-FUSE-3PH

Rogowski CT: <https://www.senvainc.com/en/products/energy-measurement/metering-series-rogowski-ct's>

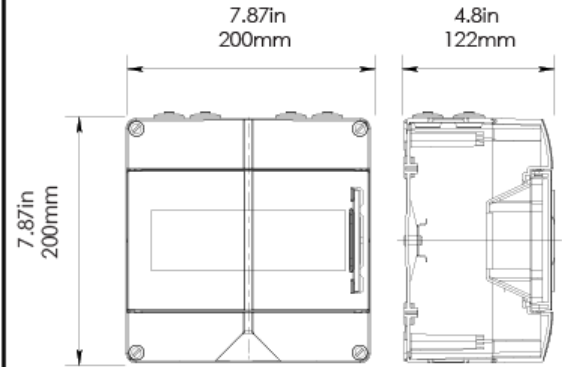
Split-Core Current Transducers: <https://www.senvainc.com/en/products/energy-measurement/metering-series-split-core-ct's>

DIMENSIONS

EMX



ENCLOSURE



**Warning:** The datasheet is designed for reference only. Refer to installation instructions that accompany the product and heed all safety instructions. Product improvement is a continuing process at Senva. Changes may occur to products without prior notice.

## SPECIFICATIONS

Power supply Input	Line/High voltage	90VLN-600VLL (+20%), 50/60Hz, 1-3 phase
	Power Consumption	4W Typ.
	Frequency Range	50/60 Hz
Outputs	RS-485	2-wire, BACnet MS/TP, Modbus RTU, Modbus ASCII
	Baud Rates	9600, 19200, 38400, 57600, 76800, 115200
	RS-485 Loading	1/4 unit
Pulse Output	Dual Outputs	Import & Export Energy Outputs
	Type	Solid state dry contact
	Specifications	N.O and N.C. 300mA max, 40Vac/dc
	Pulse scaling	0.01, 0.1, 1, 10, 100, 1k Wh/Pulse
	Duration	10,25,50,100,250,500 (ms)
EMX Wiring Requirements	Conductor gauge	24-14 AWG; Power terminals: 24-12 AWG
	Terminal torque rating	0.37 ft-lb (0.50 N•m)
Pulse Inputs	Input Rating	3.5 ± 0.5 VDC, short circuit current is 10mA max
	Pulse Rate	50 Hz (default), configurable up to 500 Hz
	Pulse Active	<100 Ohms
	Pulse Undefined	100-1000 Ohms
	Pulse Idle	>1000 Ohms
Service Types	Configurations	1Ph, 2Ph, 3Ph Wye (4-Wire), 3Ph Delta (3-Wire)
	Voltages	90VL-N through 600VL-L
	Frequency	45-65 Hz
	Measurement	CAT III
EMX Performance	Meter Accuracy	0.2% (ANSI C12.20 Class 0.2 standards)
	System Accuracy	1% for V, A, kW, kVAR, kVA
Operating Environment	Operating Temperature	-22 to 158°F (-30 to 70°C)
	Storage Temperature	-40 to 158°F (-40 to 70°C)
	Humidity	0-95% non-condensing
	Environmental Rating	IP20; Front display IP40
EMX Meter Enclosure	Material	Polycarbonate/ABS
	Dimensions	3.55"h x 4.18"w x 2.26"d
	DIN Rail Compatibility	PR30 (TS 35/F6)
Industrial Enclosure (Optional)	Environmental Rating	NEMA 4X/ IP65
	Optional enclosure dimensions	7.78"h x 7.78"w x 4.8"d
	Material	Polycarbonate
Compliance	Agency	UL Listed, cUL Listed, File E489498
	Standards	CE, RoHS

*\* Product improvement is a continual process at Senva and product features and specification may change without prior notice. Refer to instructions that accompany the product for installation and wiring.*