

AcuPanel 9107X

Branch Circuit Submetering Panel Datasheet



DESCRIPTION

The AcuPanel 9107X is a pre-wired panel for high-density branch circuit submetering in OEM and retrofit applications. It incorporates an AcuRev 4100 Series multi-channel submeter in a NEMA 4X rated enclosure, providing protection in harsh environments when installation inside an electrical distribution panel is unavailable. Factory-wired design reduces installation time and complexity.

FEATURES

- + Built-in AcuRev 4100 Series multi-channel branch circuit submeter with up to 24 current inputs.
- + NEMA 4X-rated polycarbonate enclosure suitable for both indoor and outdoor applications.
- + Lockable, plug-and-play housing that protects against external tampering.
- + Factory pre-wired and tested for fast, reliable installation.
- + Pre-installed and labelled components for simplified installation and maintenance.
- + Self-powered design eliminates the need for a separate power supply.
- + Reserved DIN-rail space for the optional communication module.
- + UL Listed and UL 508A certified for safe and dependable operation.

KEY FEATURES

High-Density Multi-Circuit Submetering

- + Integrates the AcuRev 4100 Series multi-channel branch circuit submeter.
- + ANSI C12.20 Class 0.2 & IEC 62053-22 Class 0.2S revenue-grade metering accuracy.
- + Supports up to 24 single-phase, 12 two-phase, 8 three-phase circuits, or custom service configurations, depending on required circuitry.
- + Measures demand and peak demand along with active, reactive, and apparent energy.

Self-Powered Design

- + Panel derives power from monitored system and does not require a separate power source.
- + Supports direct line connection for simplified wiring.
- + Reduces installation time for faster deployment.
- + Ideal for OEM and retrofit projects that need efficient and quick setup.

Power Quality Monitoring

- + Monitors voltage and current THD, voltage crest factor, current K-factor, and unbalance.
- + Measures individual voltage and current harmonics up to the 31st harmonic order.
- + Event-triggered waveform capture up to 128 samples/cycle, and up to 2,560 samples before/after the trigger.

UL Certified Panel

- + UL Listed confirms the AcuPanel 9107X meets UL safety standards.
- + UL 508A certification validates proper design and assembly using UL-approved components
- + AcuPanel 9107X panels are tested for reliable long-term performance.

Pre-Wired and Factory Tested

- + Panel components are pre-wired, factory assembled, colour-coded, and labelled for quick reference.
- + Includes all required fuses, accessories, mounting lugs, and tools which can be used for commissioning.
- + Minimizes wiring errors and simplifies panel installation, commissioning, and maintenance.
- + Speeds up installation while ensuring long-term reliability.

NEMA 4X Rated Enclosure

- + Provides protection against dust, water, high temperature, corrosive and harsh environmental conditions.
- + Suitable for indoor and outdoor installation which helps safeguard sensitive equipment.

Multi-Protocol Communication

- + RS485 supports Modbus RTU, BACnet and MS/TP
- + Dual Ethernet Modbus TCP, and RSTP protocols
- + Optional ACM-41-WEB2 and ACM-41-WEB2-D modules offers additional 32 GB memory, Wi-Fi, dual Ethernet, Modbus TCP, HTTPS, FTP, SFTP, NTP, SMTP, SNMP, MQTT, BACnet/IP, EtherNet/IP, AcuCloud, AWS IoT, Azure IoT, Remote Access features.

Custom OEM Solutions & Secure Design

- + Custom branding and panel configurations are available for OEM applications.
- + Integrate OEM components such as gateways, cellular modems, or power supplies.
- + Customizable panel dimensions to fit specific space or equipment requirements.
- + Enclosure metrology seals for anti-tampering.

APPLICATIONS

- + Commercial Complex & Malls
- + Apartment & Condominiums
- + Hospitals & Public Services
- + Hotels & Office Buildings
- + Tenant Submetering & Billing
- + Branch Circuit Monitoring
- + Energy Management Systems
- + Data Centres & PDUs
- + LEED Projects

ACUPANEL SPECIFICATIONS

AcuPanel 9107X



Compatible
Meter

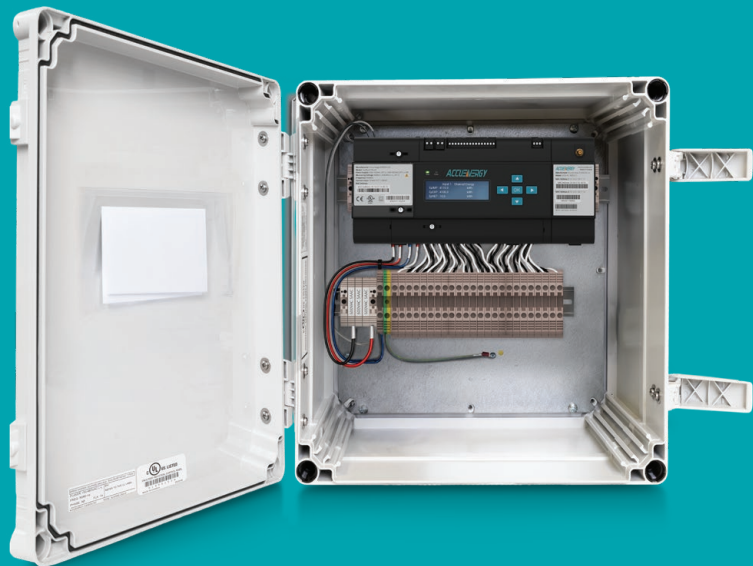


AcuRev 4100

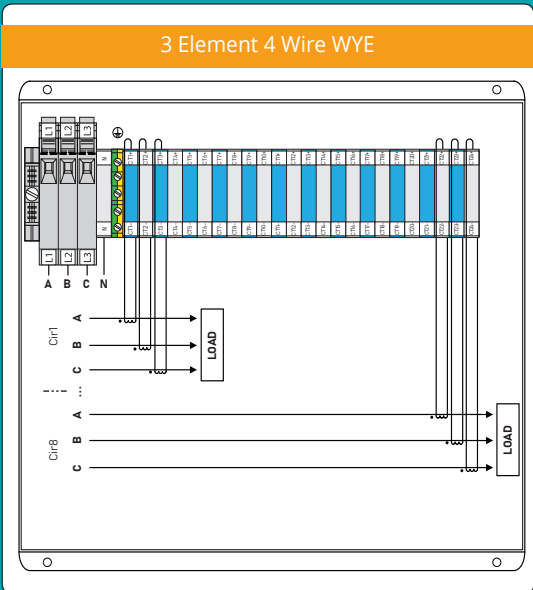
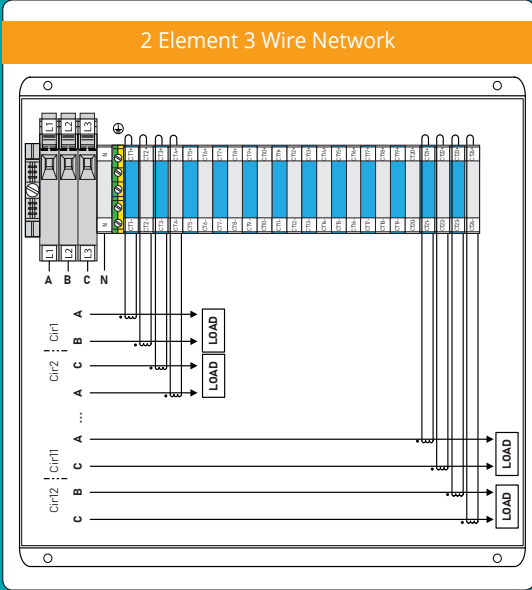
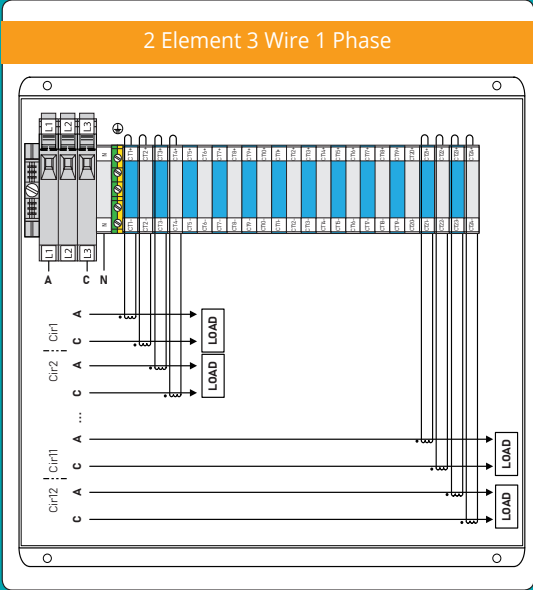
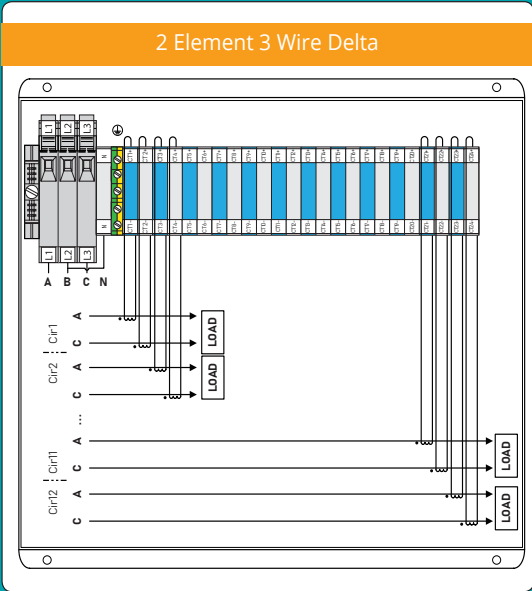
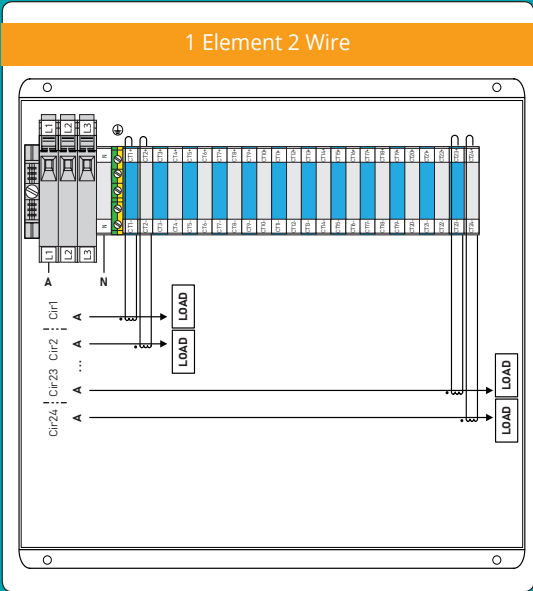
Application	Indoor or outdoor installations requiring environmental protection and weather resistance
Safety Certifications	UL 508A
NEMA Rating	NEMA 4X
Material	Polycarbonate
Anti-Corrosive	•
Dust Proof	•
Indoor Use	•
Outdoor Use	•
Pre-Wired	•

EACH STANDARD,
PRE-WIRED ENCLOSURE
INCLUDES:

- + Terminal blocks for voltage inputs
- + Terminal blocks for current inputs
- + Control transformer
- + Three industrial-grade fuses

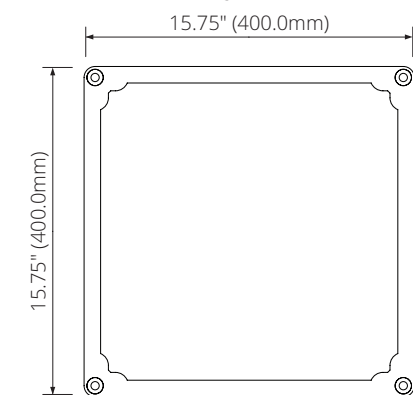


WIRING DIAGRAMS

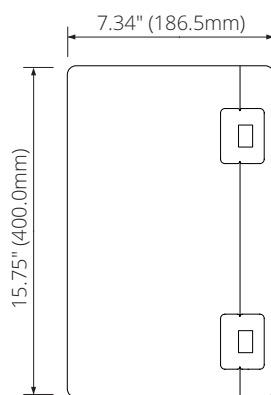


DIMENSIONS

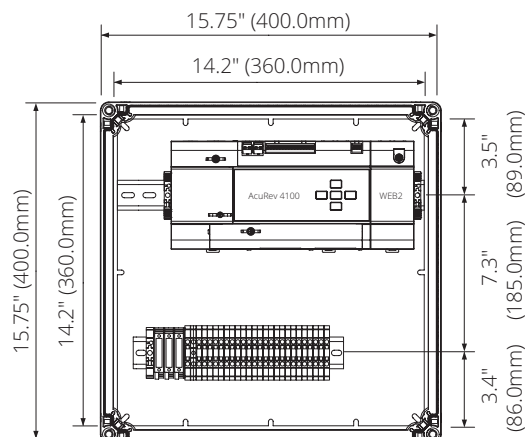
AcuPanel 9107X Polycarbonate Panel



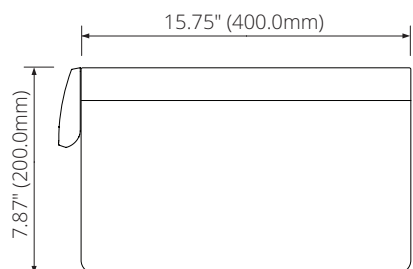
Front View



Side View



Front Inside View



Bottom View

ACCESSORIES & COMPONENTS

AC Current Transformers

High-accuracy revenue-grade split-core and solid-core current transformers with 333 mV or mA outputs for branch circuit metering applications.



Rogowski Coils

Flexible 120 mV Rogowski coils for large or difficult to access conductors and high-current branch circuits, compatible with AcuRev 4100 mV models.



AcuCT C CT Converter

The AcuCT C is a 5 A to 80 mA / 100 mA current transformer converter for applications using a 5 A primary CT. It converts the 5A signal to the required input current for compatible AcuRev 4100 mA models.



Test Lead and Voltage Clip

Dual banana connectors for secure connections, while the EPR-insulated voltage clip ensures CAT IV rated safety compliance with alligator clamps for electrical testing applications.



USB-to-RS485 Converter

Plug-and-play USB-to-RS485 converter for connecting a computer to the AcuRev 4100 meter's RS485 interface for configuration and commissioning.



SOFTWARE INTEGRATION



AcuCloud

AcuCloud is a cloud-based energy management platform that provides access to energy and electrical data from Accuenergy and other power meters. With the optional ACM-41-WEB2 or ACM-41-WEB2-D communication module, the AcuPanel 9107X can connect to AcuCloud for remote data access, monitoring, data retrieval, analysis, and import or export integration with external systems.

ORDERING INFORMATION

AcuPanel 9107X Pre-Wired Branch Circuit Control Submetering Panel

+	Pre-Wired Panel	- Meter Model	- Current Input*	- Communication Module	- Control Power
	AcuPanel 9107X: NEMA 4X Polycarbonate Panel	4110: AcuRev 4100 Submeter	mV: 333 mV CT or 120 mV Rogowski Coil Input	WEB2: Wi-Fi, Dual Ethernet, Modbus TCP, HTTPS, FTP, SFTP, NTP, SMTP, SNMP, MQTT, BACnet/ IP, EtherNet/IP, AcuCloud, AWS IoT, Azure IoT, Remote Access.	P1: 100 - 480 VAC
			mA: 80 mA or 100 mA CT Input	WEB2-D: Dual Ethernet, Modbus TCP, HTTPS, FTP, SFTP, NTP, SMTP, SNMP, MQTT, BACnet/ IP, EtherNet/IP, AcuCloud, AWS IoT, Azure IoT, Remote Access.	P4: 600 VAC
			Blank: No Communication Module		
Ordering Example:		AcuPanel 9107X-4110-mV-WEB2-P1 AcuPanel 9107X-4110-mA-P4			

AcuPanel 9107X with Measurement Canada Approval

+	Pre-Wired Panel	- Meter Model	- Current Input*	- Communication Module	- Control Power	- Measurement Canada#
	AcuPanel 9107X: NEMA 4X Polycarbonate Panel	4110: AcuRev 4100 Submeter	mA: 80 mA or 100 mA CT Input	WEB2: Wi-Fi, Dual Ethernet, Modbus TCP, HTTPS, FTP, SFTP, NTP, SMTP, SNMP, MQTT, BACnet/IP, EtherNet/IP, AcuCloud, AWS IoT, Azure IoT, Remote Access.	P1: 100 - 480 VAC	MC: Measurement Canada Approved
				WEB2-D: Dual Ethernet, Modbus TCP, HTTPS, FTP, SFTP, NTP, SMTP, SNMP, MQTT, BACnet/IP, EtherNet/IP, AcuCloud, AWS IoT, Azure IoT, Remote Access.	P4: 600 VAC	Blank: For Other Applications
				Blank: No Communication Module		
Ordering Example:						

*Note: It is recommended to use 3 current transformers per three-phase circuit.
#Note: Measurement Canada option is only available for the mA current input model of the AcuRev 4100 Series.



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Specs Subject To Change Without Notice.





ISO 9001, 14001
& 45001 Certified



ISO 27001 &
50001 Certified

