



Product Presentation Data Centres - PDUs

Accuenergy Overview



Private Company Founded in 1998



Leading Supplier of Power
Meters and Metering Accessories



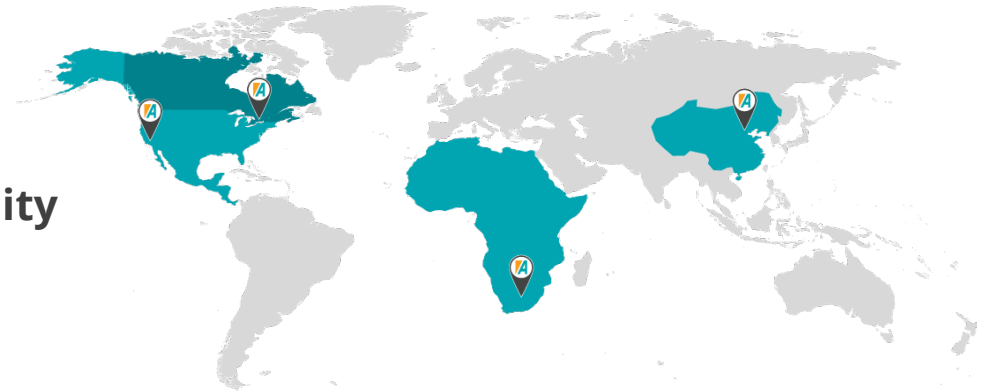
Global Presence

Toronto, HQ

Offices in:

Canada, America, Africa, and China

+ 140K Sqft Facility



000 + Employees

Industries Served



Industrial



**Info and Communications
Technology**



Power Generation



Multi-Tenant



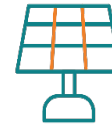
Energy Storage



Commercial



Transport



Renewable Energy



Product Portfolio

ACCUE *ENERGY*

Electrical Power Meters

- PQMs
- Sub-Meters
- CTs



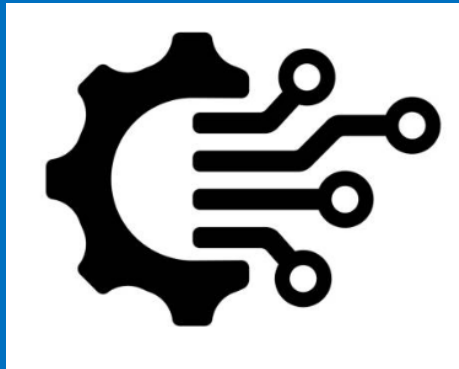
BAS Sensor

- Temperature
- Diff Pressure
- Relative Humidity



cUL Panel Shop

- Design
- Custom Fabrications
- Instrument and Controls Panel



Services

- Software
- Field and Commissioning Services



MECHANICAL METERS: WATER,THERMAL AND GAS - Coming Soon!

Electrical Metering Portfolio



	Acuvim 3	Acuvim II	Acuvim L	AcuRev 2100	AcuRev 1310	AcuDC 240
AC/DC	AC	AC	AC	AC	AC	DC
Circuits	1p/2p/3p	1p/2p/3p	1p/2p/3p	18 channels	1p/2p/3p	1 circuit
Accuracy	0.1	0.1	0.2/0.5	0.5	0.5	0.5
Communication	Serial + IP	Serial + IP	Serial + IP	Serial + IP	Serial	Serial
Mounting	Panel + DIN	Panel or DIN	Panel or DIN	DIN	DIN	Panel or DIN
Logging	✓	✓	✓	✓		✓
Power Quality	✓	✓	✓	✓		
Fast Refresh	✓	✓				
Advanced PQ	✓					

Current Transformer Portfolio



Rogowski Coil



Split Core



Solid Core



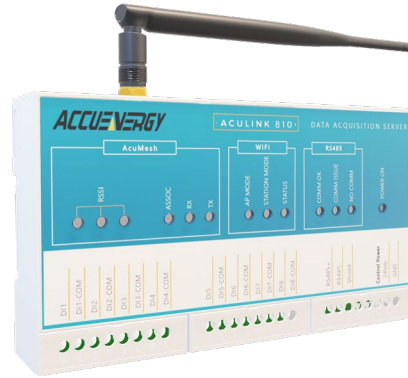
DC Sensors



CT Accessories

	Rogowski Coil	Split Core	Solid Core	DC Sensors	CT Accessories
AC/DC	AC	AC	AC	DC	AC
Output(s)	mV	1A/5A/mA/333mV	1A/5A/mA/333mV	4-20mA/0-5V	-
Accuracy	0.5	0.5	0.2	0.5	-
Type	Split	Split	Solid	Split	-
UL	-	✓	✓	-	-
Measurement Canada approved	-	-	✓	-	-

Communications Portfolio



AcuLink 810



AcuMesh



AXM-WEB2

Type	Gateway	RF Transceiver	Communications Module
Power Supply	24VDC	24VDC	Powered by Meter
Protocol	Various	Modbus	Various
Third Party Support	✓	✓	-

BAS Product Portfolio

Temperature Sensor: **AcuTEMS-DM**



Relative Humidity Sensor: **AcuHUM-DM**



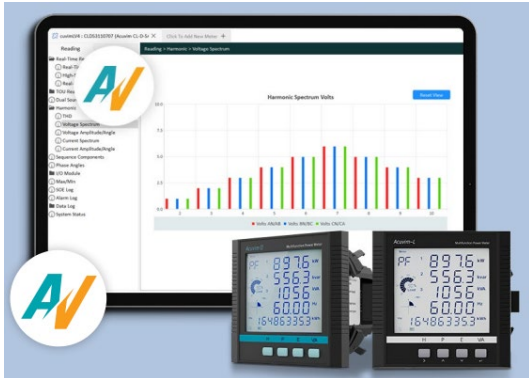
Differential Pressure Sensor: **AcuPRE-WM**



AcuCO2™ Carbon Dioxide and **AcuCUR™** Current Sensors and Switches - Coming Soon!

Software Portfolio

PC Based Software



Web Browser Interface



Cloud Management Software



Panel Shop Services



**Built-to-Print
Orders**



**Test &
Verification**



**Turnkey
Solutions**



**OEM Panel
Solutions**



**UL 508A
Panels**

Field Services



DESIGN

PRE-INSTALLATION AUDITS

INSTALLATIONS

COMMISSIONING

Data Centre Metering

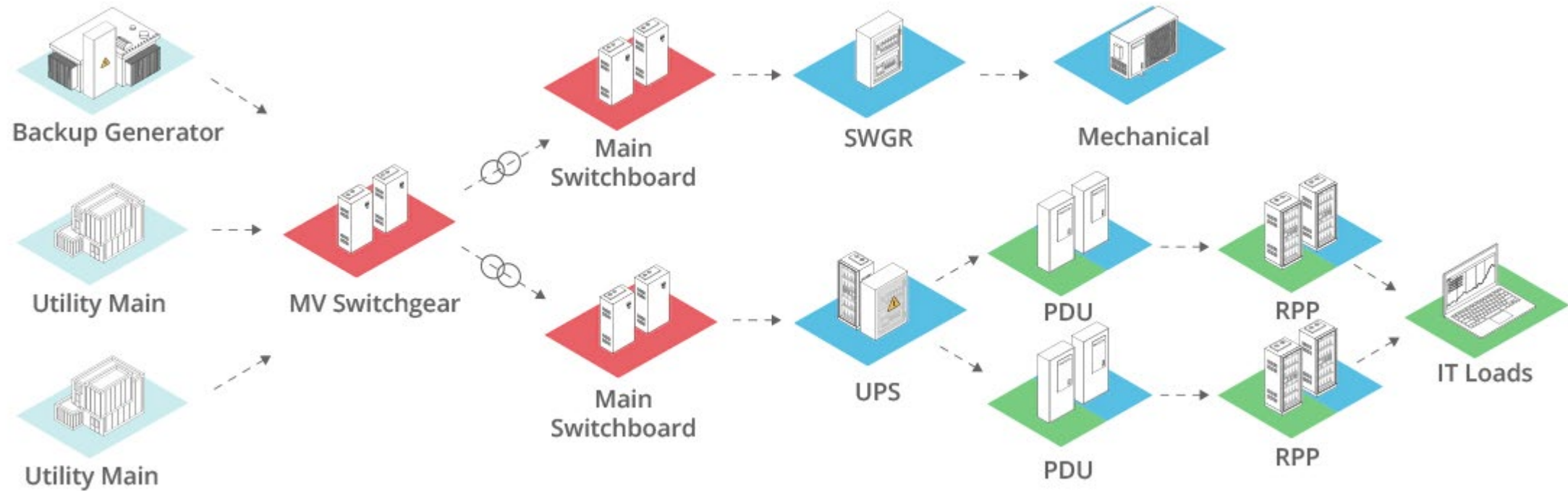
ACCUE *ENERGY*

Overview - Data Center Metering



Driven By AI | Hyperscales | Bit Coin Blockchains

Typical Topology



PM1 PM2 PM3

Tier1: Service Entrance/Main
Acuvim3/Acuvim IIW

Tier 2: Critical Power
Acuvim IIR

Tier 3: Feeders and IT Loads
AcuRev2100/4100

Data Centre Metering: Layer 1 - Mains

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ACUVIM 3



PM1

Utility | MV Switchgear | Main Switchboard

ACCUENERGY

ACUVIM 3

Advanced Power Quality Analyzer



Key Features:

- Class 0.1S accuracy
- **Class A** compliant PQ meter
- PMU Synchrophaser
- Sampling rate of 1024 samples/cycle
- Disturbance direction detection
- Open Circuit detection
- Waveform capture up to 512 samples/cycle
- EN50160 and IEE519 compliant PQ reports
- 32GB memory for datalogging
- Multi protocol support: Modbus RTU/TCP, BACnet MSTP, BACnet IP, DNP3 TCP, SNMP, RSTP, FTP, etc.



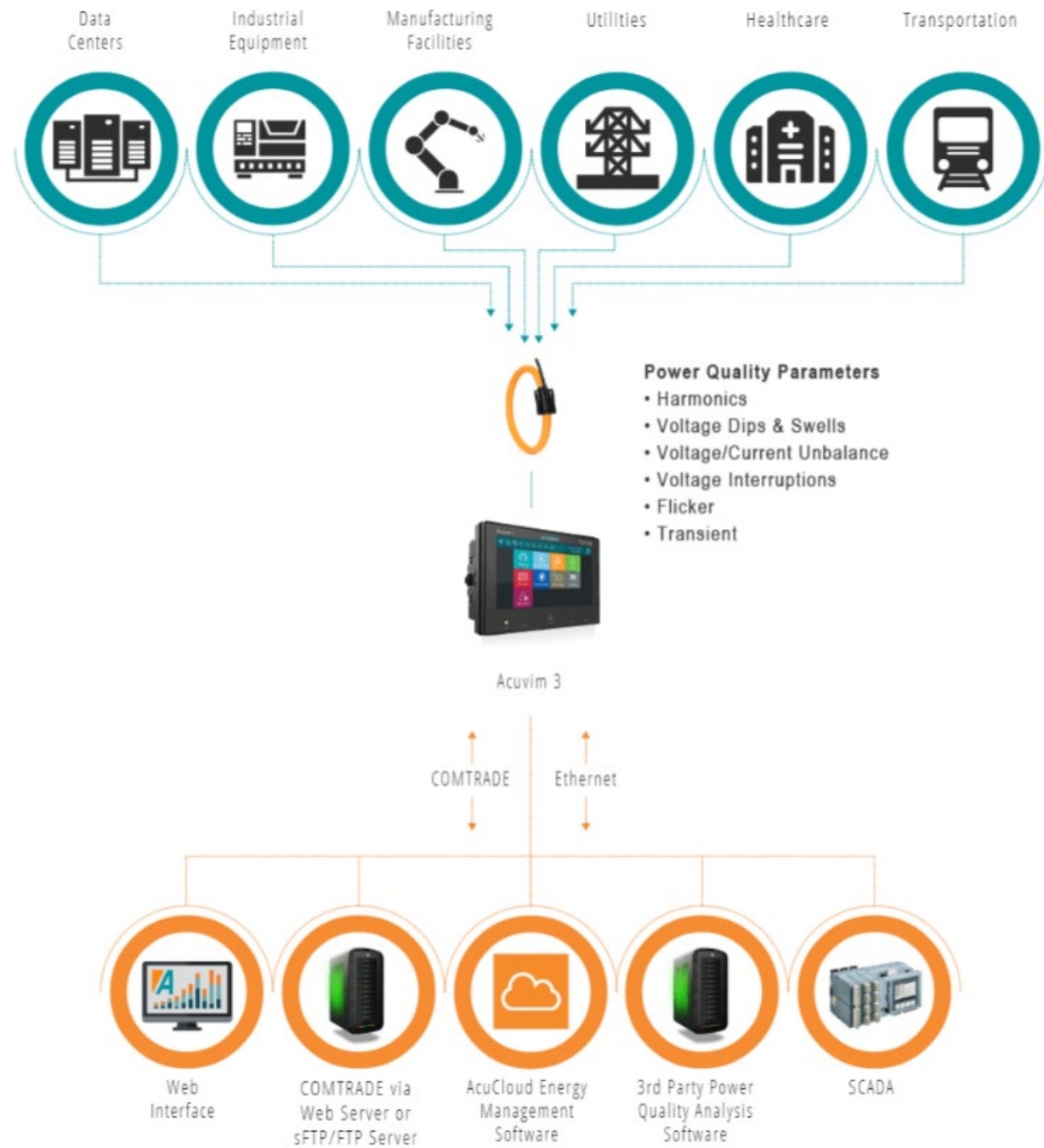
1. Status Bar (Connection Status WIFI/Ethernet, IO and date/time)
2. Touchscreen HMI Display (Full colour 7 inch LCD, 800x480)
3. Display controls
4. Antenna Input (2.4GHz WIFI interface)
5. Digital Input (4 DI inputs)
6. Power Supply (Control Power input)
7. Voltage Input Terminal (400VLN/690VLL)
8. Current Input Terminal (5A, 333mV/RCT)
9. Dual Ethernet ports (Access to web interface, RSTP supported)
10. USB-C Port (Modbus RTU Connection)
11. Digital Output
12. IRIG-B Port (PMU time synchronization)
13. RS485 Port

ACUVIM 3



Applications:

- Primary Entry Power Monitoring
 - Data Centre HV XFMR
 - Switchgear Mains
 - Distribution Panels
 - Power Quality Analysis



Data Centre Metering: Layer 2 – Critical Power

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ACUVIM IIV3



PM2

UPS | PDU | RPP

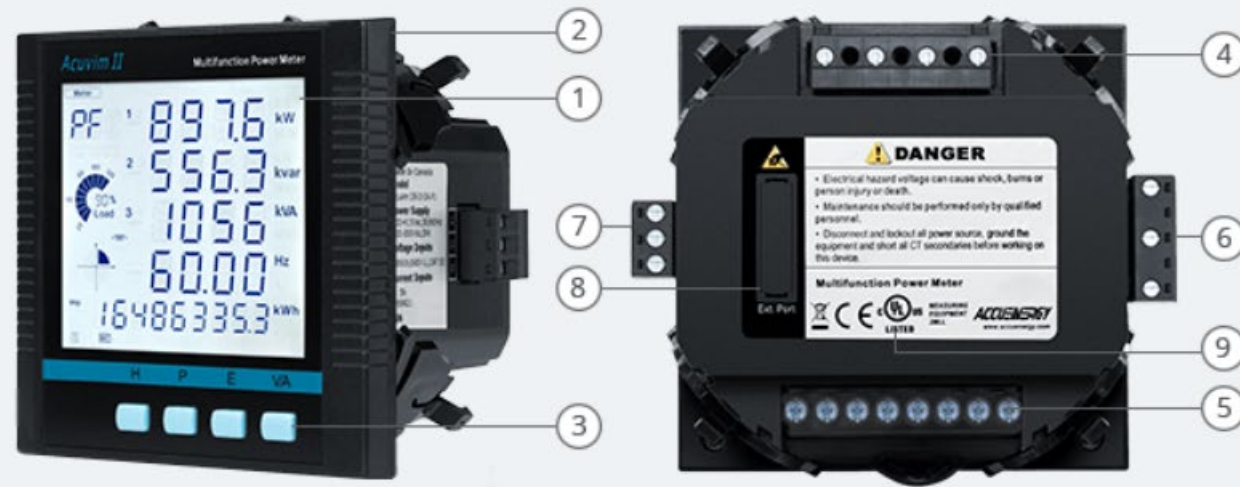
ACUVIM IIV3



Advanced Power Quality & Energy Meter

Key Features:

- Class 0.1 accuracy
- **Class S** compliant PQ meter
- Waveform capture
- Time of Use (TOU) support
- Data logging
- Modbus RTU/BACnet MSTP - Standard
- Panel or DIN rail mountable
- 4 CT inputs, measuring neutral current
- Expandable IO available



1

LCD Screen

Large, backlit LCD screen

2

Enclosure

Made of high-strength, UL 94V-0 plastic

3

Function Keys

Four keys are used to interface with the meter

4

Voltage Input

Terminal for connecting voltage wiring

5

Current Input

Terminal for connecting current wiring

6

Power Supply

Connection for control power input

7

Communication Terminal

Meter's communication output

8

Module Connection

Connection for communication module

9

UL Listed

Meets UL safety standards

ACUVIM IIV3



Applications:

- PQ Monitoring
- Transformer Secondary
- UPS
- PDU Mains
- Backup Generators
- Efficiency Measurements
- Unit Cost Calculations

Data Centre Metering: Layer 3 – Feeders/Racks

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ACUREV 4100



■ PM3

RPP | PDU | BCM | Racking

ELECTRICAL METERS

ACUREV 4100

Multi-Channel Sub-meter

Key Features:

- 0.2 class accuracy
- **24 circuits – Configurable**
- **Dual Voltage Reference**
- WEB2 communications module for Data Logging and multiprotocol support
- Modbus RTU/BACnet MSTP supported
- RSTP/Bridge Connection For Channel Count Scalability





1. LCD Screen
2. Enclosure (High strength UL 94V-0 plastic)
3. Function Keys
4. Voltage Input (400VLN/690VLL)
5. Power Supply Input
6. Relay Output (2x RO)
7. RS485 Port (Modbus RTU/BACnet MSTP)

8. Digital Output (6xDO)
9. Dual Ethernet Ports (Built in WEB2 module, RSTP supported)
10. WIFI Antenna
11. Current Input (333mV/RCT, 80/100mA)
12. Digital Input (18xDI Pulse or Status)
13. DIN Rail mount

ACUREV 4100



Applications:

- PDU Sub-Feeds
- Feeder Panels
- RPPs
- Racks Power Monitoring
- Branch Monitoring



Data Centre Metering: DC Distribution Panels

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ACUDC 262



Modern Data Centres – Combines AC and DC Power

ACUDC 262

DC Sub-meter



Key Features:

- UL recognized
- 0.5 class accuracy
- 0.1Wh Resolution
- **Dual Current Input**
- 60V to 1000V Direct Input
- Modbus RTU and Modbus TCP communication
- DC Shunt or Hall Sensor

ACUDC 262



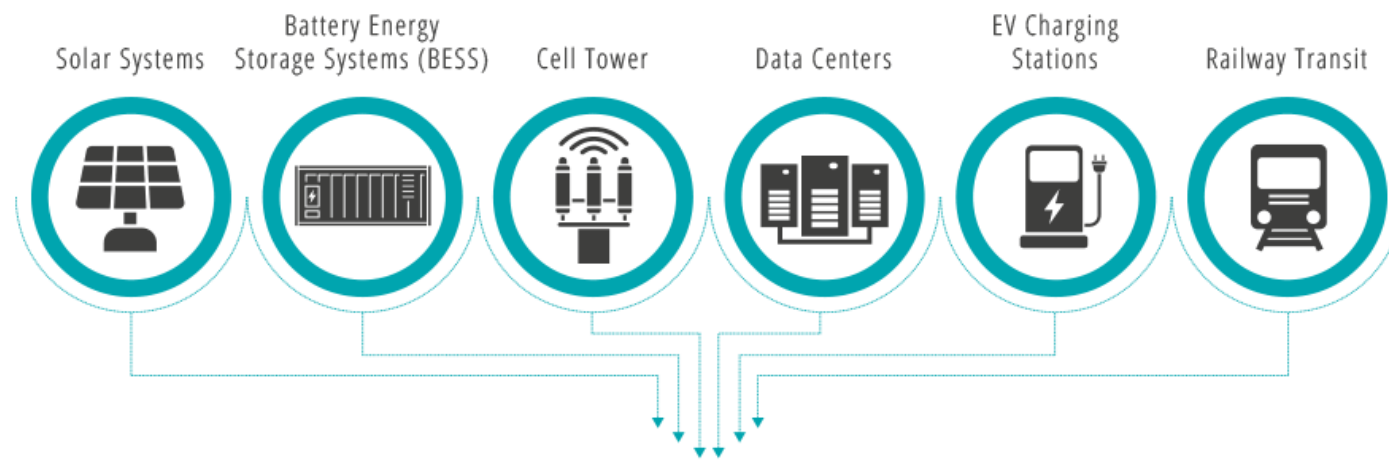
Applications:

- DC Distribution Panels (DC PDUs)
- DC Busing
- Recifiers
- BESS
- DC-DC Converters



- 1 LCD Display**
Backlight screen.
- 2 Pulse LED Indicator**
LED indicator for energy pulse signals.
- 3 DIN Rail**
Used on a 35mm DIN rail mount.
- 4 Ethernet Port**
Single RJ45 Ethernet Connector.
- 5 RS485 Terminal**
Modbus RTU RS485 communication port.

- 6 Current Input Terminals**
Two current input terminals.
- 7 Power Supply Terminal**
Control power Input.
- 8 Electronic Seal Switch**
Anti-tampering design with metrology seal.
- 9 Voltage Input Terminal**
Used for voltage input.
- 10 Navigation Panel**
Five navigation keys for local configuration.



Shunt Hall Effect Sensor

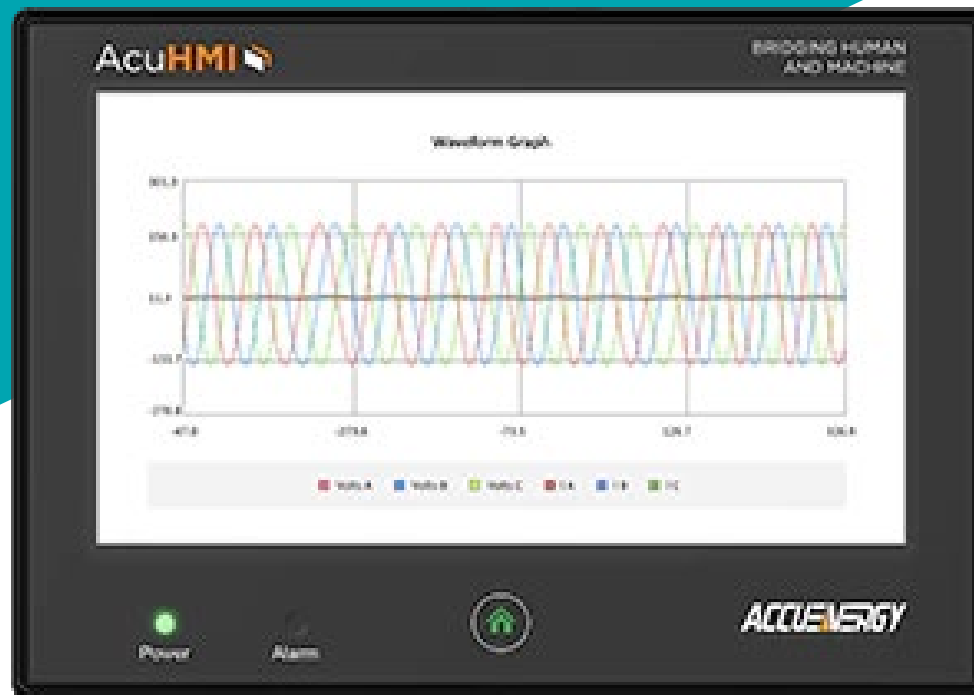
AcuDC-262



Data Centre Metering: Centralized Monitoring

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ACUHMI



Data Aggregation | DAQ | Gateway | Local Display | Local Alarming

ACUHMI

Powerful HMI Display Unit

Key Features:

- 7" Colour touchscreen Display Unit
- Built in Gateway
- 32GB On –Board Memory
- Modbus RTU, Modbus TCP, BACnet MSTP, BACnet IP, MQTT, AWS IoT
- Third-party Device Connection
- Dual Ethernet (50 devices per port) and Dual RS485 (32 devices per port)
- I/O Support
- Built in Webserver
- Remote Access
- Network Bridging





1

HMI Display

Full-colour 800×480 backlit TFT display

2

Display Controls

Power status LED, Alarm status LED, Home key

3

RS485 Connection

Two Modbus RTU RS485 ports

4

Ethernet Ports

Dual RJ45 supports RSTP daisy chain

5

Power Supply Terminal

12-36VDC power input

6

Digital Inputs

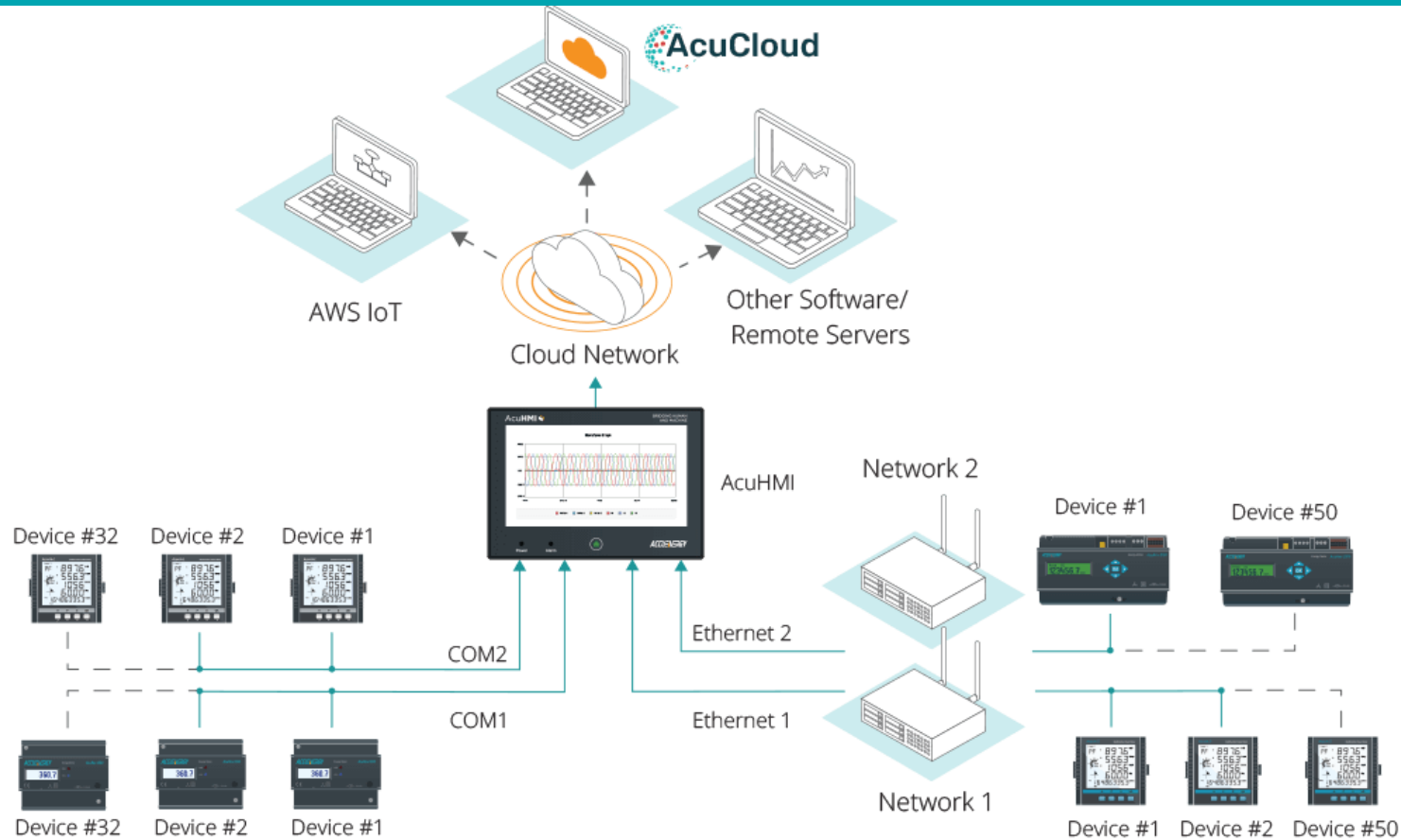
Terminal for eight DI

7

Relay Outputs

Terminal for 8 RO

ACUDC HMI



Applications:

- Centralize /Manage All Connected Devices
- Real-time Data Monitoring
- Monitor/Manage
- Alarms and Status indication
- Datalog for Redundancy

Data Centre Metering: High Precision CTs

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Current Transformer Family



Rogowski Coil



Split Core



Solid Core



DC Sensors



CT Accessories

	Rogowski Coil	Split Core	Solid Core	DC Sensors	CT Accessories
AC/DC	AC	AC	AC	DC	AC
Output(s)	mV	1A/5A/mA/333mV	1A/5A/mA/333mV	4-20mA/0-5V	-
Accuracy	0.5	0.5	0.2	0.5	-
Type	Split	Split	Solid	Split	-
UL	-	✓	✓	-	-
Measurement Canada approved	-	-	✓	-	-

Split Core CTS



The R Series High Accuracy CT

- Range: 50A-5000A
- 0.5% accuracy
- Window : 0.75" to 5"x7.1"
- Multiple Output Options: mA, mV, 1/5A

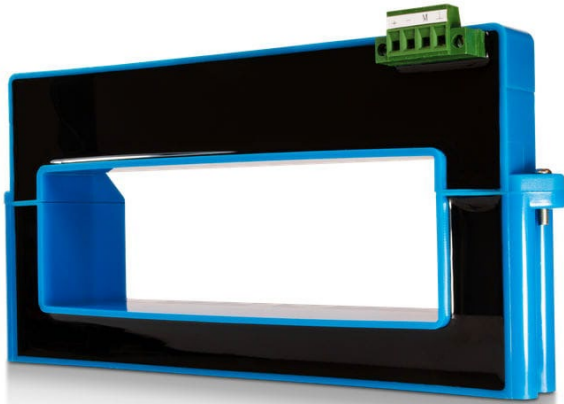
Solid Core Series



High Accuracy CTs

- Range: 50A-4000A
- **0.2% Class Accuracy**
- Window : 0.77" to 6.3"x6.3"
- Multiple Output Options: mA, mV, 1/5A

DC Hall Sensors



High Accuracy DC Sensors

- Range: 50A-4000A
- **0.5% Class Accuracy**
- Window : 0.83" | 1.58" | 9.25" x 3.78" x 1.93"
- Multiple Output Options: mA or MV



Thank you, if you have any questions or
require a quote please contact:

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ACCUEVERGY