



POWERSCOUT™ 24

High Performance Multi-Circuit Monitoring

The PowerScout 24 (PS24) is a versatile multi-channel power meter. The modular design allows it to be configured for monitoring multiple electrical circuits (sharing a common voltage source), or for current only monitoring of branch circuits. It can be supplied with virtually any combination of DENT's internally-shunted split core or RoCoil CTs to monitor up to 8 three-phase or 24 single phase circuits. There are virtually no restrictions in "mixing & matching" CTs on the PS24 and it allows for communication over either BACnet or Modbus protocols via a Serial or Ethernet connection. Another feature are the 8 Digital Outputs included on the meter--one per meter "element." Use these digital outputs to send kWh or other pulses to a pulse counting device, such as an RTU. A USB port is available for quick and easy setup, simply connect the PS24 to a PC, then use ViewPoint software to configure CT type, communication protocol, and other parameters. It is convenient to preconfigure the meter before deployment which minimizes time in the field. Installing the PS24 is simple thanks to a single voltage connection via color-coded voltage leads and clearly labeled CTs. DENT's patented PhaseChek™ circuitry includes a three LED indicator display that confirms proper CT-to-phase installation. The PowerScout automatically adjusts for CT orientation, greatly reducing set-up time and all but eliminating installation errors. Applications include: Tenant Submetering, Net Metering, Data Center Monitoring, Commercial, Retail, Industrial, Lighting, and Equipment Monitoring.

The PowerScout™ Series is covered by ACI's Five (5) Year Limited Warranty. The warranty can be found in the front of ACI's sensors & Transmitters catalog, as well as on ACI's website, www.workaci.com.



SPECIFICATIONS

Service Type	Single phase, 3 phase-4 wire (Wye), 3 phase-3 wire (Delta)
Measurements	Volts, Amps, kW, kWh, kVAR, kVARh, kVA, kVAh, aPF, dPF
Power	L1 Phase to L2 Phase, 80-600 VAC CAT III 50/60Hz, 70mA Max, Non-user replaceable 0.5 Amp internal fuse protection
Power Output	Unregulated 5 VDC output, 500 mA max
Pulse Output	Open collector, 75 mA max current, 40V max open voltage
Voltage Channels	80-346 VAC line-to-neutral, 600V phase-to-phase, CAT III
Current Channels	3 24 channels, 0.67 VAC max, 333 mV CTs, 0-5000A
Waveform Sampling	200 samples/60 Hz waveform, 240 samples/50 Hz waveform
Parameter Update Rate	1 second
Accuracy	0.5% ANSI C12.20-2010 Class 0.5 for V, A, kW, kVAR, kVA, PF
Max. Current Input	200% of current transducer rating (mV CTs) Measure up to 5000A with RoCoil™ CTs
Environmental Temp, RH	Temp: -20 to 60°C (-4 to 140°F), RH: 5% to 95% non-condensing
Resolution	0.01A, 0.1V, 0.01 Watt, 0.01 VAR, 0.01 VA, 0.01 Power Factor depending on Scalar Setting
Product Dimensions	w/ enclosure: 10.9" x 7.4" x 5.1" (27.7 x 18.8 x 12.9 cm) w/o enclosure: 10.0" x 6.5" x 1.3" (25.5 x 16.5 x 3.2 cm)

COMMUNICATIONS

Direct	User selectable Modbus/BACnet Master Slave Token Passing protocol (MS/TP) optional BACnet IP/Modbus TCP over ethernet
Max Distance	1200 meters with data range of 100K bits/second or less
Baud Rate	9600 (Modbus default), 19200, 38400, 57600, 76800 (BACnet default), 115200
Data Bits	8
Parity	None, Even, Odd
Stop Bit	2,1
Data Formats	Modbus or BACnet

VIEWPOINT SOFTWARE

Operating System	Windows® 7 (32/64 Bit) Vista (32/64 Bit)
Communications	RS-485 & USB standard. Ethernet available. One USB Port required on PC

MODBUS REGISTER/BACNET OBJECT DESCRIPTIONS (PARTIAL LIST)

System True Energy +/- (kWh)	Individual Phase to Phase Voltages
Instantaneous Total True Power +/- (kW)	Individual Phases True Energy +/- (kWh)
Peak Demand (Adj. Window) (kW)	Individual Phases True Power +/- (kW)
Max. Instantaneous Power +/- (kW)	Individual Phases Reactive Energy +/- (kVARh)
Min. Instantaneous Power +/- (kW)	Individual Phases Reactive Power +/- (kVAR)
System Reactive Energy +/- (kVARh)	Individual Phases Apparent Energy (kVAh)
System Apparent Energy (kVAh)	Individual Phases Apparent Power (kVA)
System Apparent Power (kVA)	Individual Phases Apparent Power Factor (aPF)
System Displacement Power Factor (dPF)	Individual Phases Displacement Power Factor (dPF)
System Apparent Power Factor (aPF)	Individual Phases Line to Neutral Voltages (Volts)
Average Line to Line Voltage (Volts)	Individual Phases Line to Line Voltages (Volts)

SAFETY APPROVALS

PS24-N-S	UL Recognized, CE mark Conforms to UL Std 61010-1 Certified to CSA Std C22.2 No. 61010-1
PS24-D-S	UL Listed, CE mark Conforms to UL Std 61010-1 Certified to CSA Std C22.2 No. 61010-1
PS24-N-E	UL Recognized Conforms to UL Std 61010-1 Certified to CSA Std C22.2 No. 61010-1
PS24-D-E	UL Listed Conforms to UL Std 61010-1 Certified to CSA Std C22.2 No. 61010-1

ORDERING

Please select a PowerScout™ 24 (A).

A PowerScout™ 24

- PS24-N-S** (Circuit board only, Serial Communications (BACnet MS/TP or Modbus RTU), No Display)
- PS24-D-S** (NEMA 4X Indoor Enclosure, Serial Communications (BACnet MS/TP or Modbus RTU), No Display)
- PS24-N-E** (Circuit board only, Ethernet Communications (BACnet IP or Modbus TCP), No Display)
- PS24-D-E** (NEMA 4X Indoor Enclosure, Ethernet Communications (BACnet IP or Modbus TCP), No Display)

BUILD PART NUMBER

After completing (A) from the above table, fill in the Part Number Table below. An example part number is offered. All meters include the viewpoint software to configure the PowerScout™ Meter and to monitor real time values to ensure meter is configured properly.

A

EXAMPLE: PS24-N-S