

POWERSCOUT™
REVENUE-GRADE SINGLE-POINT POWER METER

3037 & 24

ESIS Pty Ltd

POWERSCOUT™

SPECIFICATIONS

ADAPT TO ANY PROJECT

The PowerScout 3037 comes in four basic configurations depending on whether a display or Ethernet port are desired. Instead of having one specific meter for a single job, the PowerScout 3037 can adapt to nearly any project requirement.

All PowerScout 3037 models have a broadband power supply (80-600VAC) and can be paired with a variety of current transformers, from split cores that measure <1A up to large RoCoils designed for measuring 4000A. In addition, communication protocols are field-selectable. Easily toggle between Modbus or BACnet using ViewPoint software.

QUICK & EASY SETUP

Configuring the PowerScout 3037 for a new project is faster than ever before, thanks to the standard USB port. To configure, simply connect the meter to a PC using a USB cable, then use ViewPoint software to select CT type, communication protocol, and other parameters. The meter is powered by the USB port while connected to a PC. Have several meters that require the same configuration? Save your setup table in ViewPoint and use it over and over.

FASTEST & EASIEST INSTALLATION

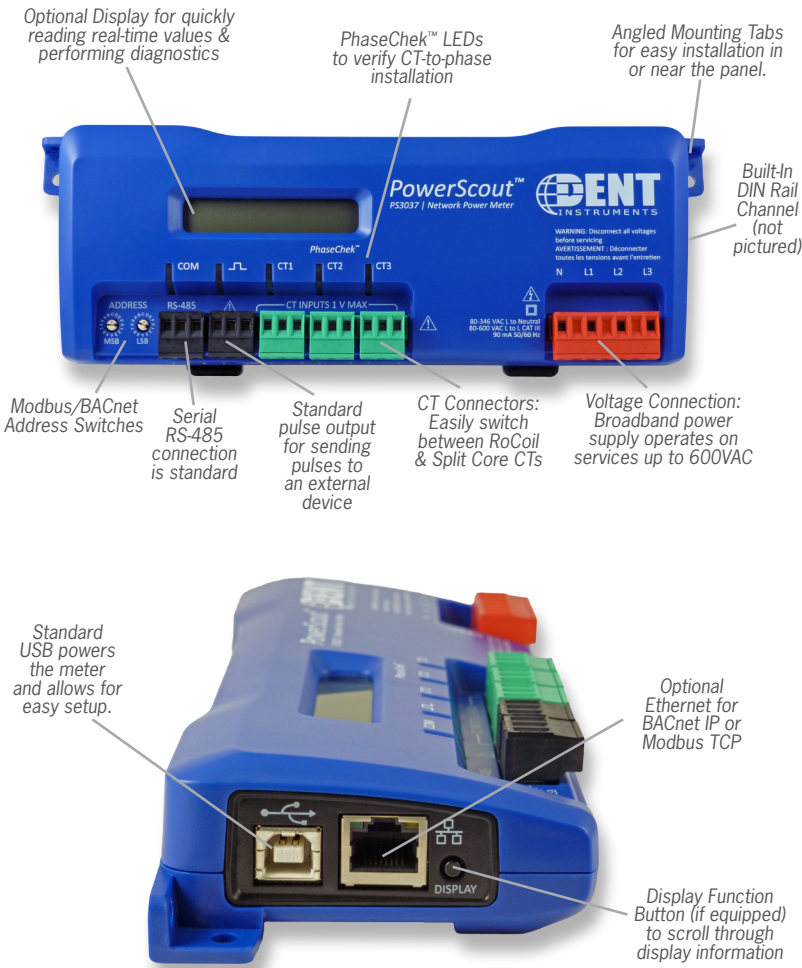
The PowerScout 3037 is compact enough to facilitate in-panel mounting. Or, use the built-in DIN rail channel, which is compatible with TS35/7 rail for quick and easy mounting near the circuit panel.

PowerScout instruments are line-powered and do not require external power. Its power supply can accommodate service voltages ranging from 80-600V (phase-to-phase). DENT's patented PhaseChek™ circuitry includes a 3 bi-color LED indicator display that confirms proper CT-to-phase placement and orientation.



Use the standard USB connection to easily power and configure the PowerScout 3037 at your office or in the field. Once connected to the panel, USB can also be used to verify setup and check real-time values.

POWERSCOUT 3037 ANATOMY



REVENUE-GRADE PERFORMANCE

The PowerScout 3037 features revenue-grade ANSI C12.20-2010 qualified Class 0.2 performance. Paired with the appropriate DENT CTs, the PowerScout 3037 is ideal for high-accuracy applications like demand response or tenant submetering.

COMMUNICATIONS: INDUSTRY-STANDARD MODBUS OR BACNET

Communications interface to the PowerScout 3037 can be accomplished through serial RS-485 or USB, or optional Ethernet. The PowerScout can use either the BACnet IP or MS/TP protocol or Modbus TCP or RS-485 protocol for sending commands or retrieving data.

STANDARD PULSE OUTPUT

Send kWh or other pulses to an external device. The pulse output is used to generate system kWh pulses for devices, such as data loggers, that can accept pulses, but do not have BACnet or Modbus capability.

TECHNICAL	
SERVICE TYPE	Single Phase, 3 Phase - 4 Wire (WYE), 3 Phase - 3 Wire (Delta)
POWER	From L1 Phase to L2 Phase. 80-600VAC CAT III 50/60Hz, 70mA Max. Non-user replaceable .5 Amp internal fuse protection
POWER OUT	PS3037: Unregulated 5VDC output, 140 mA Max, resetting fuse PS24: Unregulated 5VDC output, 500 mA Max
VOLTAGE CHANNELS*	80-346 Volts AC Line-to-Neutral, 600V Phase-to-Phase, CAT III
CURRENT CHANNELS	PS3037: 3 channels, 0.52 VAC max, 333 mV CTs, 0-4,000A PS24: 3 24 channels, 0.67 VAC max, 333 mV CTs, 0-5,000A
MAXIMUM CURRENT INPUT	PS3037: 158% of current transducer rating (mV CTs) to maintain accuracy. Measure up to 4000A with RoCoil CTs PS24: 200% of current transducer rating (mV CTs) Measure up to 5000A with RoCoil CTs
MEASUREMENT TYPE	True RMS using high-speed digital signal processing (DSP)
LINE FREQUENCY	50/60 Hz
WAVEFORM SAMPLING	12 kHz
PARAMETER UPDATE RATE	PS3037: .5 seconds PS24: 1 second
MEASUREMENTS	Volts, Amps, kW, kWh, kVAR, kVARh, kVA, kVAh, aPF, dPF.
ACCURACY	PS3037: 0.2% (<0.1% typical) ANSI C12.20-2010 Class 0.2 PS24: 1% (<0.5% typical) for V, A, kW, kVAR, kVA, PF.
RESOLUTION	0.01 Amp, 0.1 Volt, 0.01 watt, 0.01 VAR, 0.01 VA, 0.01 Power Factor depending on scalar setting
LED INDICATORS	Bi-color LEDs (red and green): 1 LED to indicate communication, 3 LEDs for correct CT-to-phase installation (per meter element).
PULSE OUTPUT	PS3037: Open Collector, 5mA max current, 30V max open voltage PS24: Open Collector, 75mA max current, 40V max open voltage

COMMUNICATIONS	
DIRECT	User selectable Modbus/BACnet Master Slave Token Passing protocol (MS/TP) or (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

MECHANICAL	
OPERATING TEMPERATURE	-20° to 60°C (-4° to 140°F)
HUMIDITY	5% to 95% non-condensing
ENCLOSURE	PS3037: ABS Plastic, 94-V0 flammability rating PS24 (optional): PC UL 94 5V
WEIGHT (EXCLUDING CTS)	PS3037: 340 g (12 ounces) PS24 Without Enclosure: 369 g (13 oz) PS24 With Enclosure: 610 g (21.5 oz)
DIMENSIONS	PS3037: 24.2 x 8.5 x 4.0 cm (9.5" x 3.3" x 1.6") PS24 Without Enclosure: 25.5 x 16.5 x 3.2 cm (10.0" x 6.5" x 1.3") PS24 With Enclosure: 27.8 x 18.8 x 13.0 cm (10.9" x 7.4" x 5.1")

VIEWPOINT SOFTWARE	
OPERATING SYSTEM	Windows® 8, Windows® 7 (32/64 bit), Windows® Vista (32/64 bit), or Windows® XP
COMMUNICATIONS	RS-485 & USB standard. Ethernet available. One USB Port required on PC.

SAFETY	
POWERSCOUT 3037 (All) PS3037-S-N, PS3037-S-D, PS3037-E-N, PS3037-E-D	UL Listed and CE Mark Conforms to UL Std 61010-1 Certified to CSA Std C22.2 No. 61010-1
POWERSCOUT 24 N Serial PS24-N-S (circuit board only)	UL Recognized, CE Mark Conforms to UL Std 61010-1 Certified to CSA Std C22.2 No. 61010-1
POWERSCOUT 24 D Serial PS24-D-S (with indoor enclosure)	UL Listed, CE Mark Conforms to UL Std 61010-1 Certified to CSA Std C22.2 No. 61010-1
POWERSCOUT 24 N Ethernet PS24-N-E (circuit board only)	UL Recognized Conforms to UL Std 61010-1 Certified to CSA Std C22.2 No. 61010-1
POWERSCOUT 24 D Ethernet PS24-D-E (with indoor enclosure)	UL Listed Conforms to UL Std 61010-1 Certified to CSA Std C22.2 No. 61010-1

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 (Adjustable Window) (kW)	Individual Phases True Power +/- (kW)
Maximum Instantaneous Power +/- (kW)	Individual Phases Reactive Energy +/- (kVARh)
Minimum 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)
Average Line to Neutral Voltage (Volts)	PS3037: Net system true energy (kWh)

VIEWPOINT™ SOFTWARE: QUICK AND EASY SET-UP, CONFIGURATION, & DIAGNOSTICS

DENT's ViewPoint software utility allows you to easily configure the PowerScout for the connected CTs and to check real-time values to ensure that the meter is properly configured. ViewPoint is the quick and easy way to:

- Switch between communication protocols
- Verify meter installation
- Check real-time values before leaving the job site
- Read and write to specific registers
- Set the data scalar setting
- Update PowerScout firmware





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