PART OF BEMSIQ GROUP

PowerScout™ 3 HD Single-Circuit Power Meter
Quick Start Guide
FOR QUALIFIED PERSONNEL ONLY

Rev080425

This Quick Start Guide provides a general overview for basic installation. For more in-depth information and troubleshooting steps, please refer to the full Operator's Guide for your meter.

INSTALLATION OVERVIEW - DIN RAIL MOUNT ENCLOSURE*

1. Install ViewPoint HD Software

Scan the QR code below or visit: **Required**

- dentinstruments.com/viewpoint
- This free tool is required to configure your PowerScout HD Series meter.

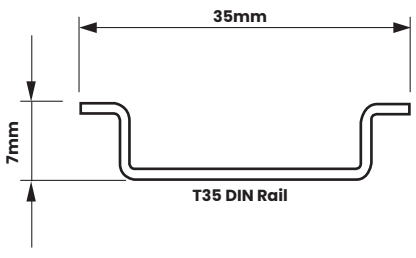
Step 2: Install and Launch ViewPoint HD

- Once the download is complete:
- Open the installer and follow the prompts.

2. Attach DIN Rail

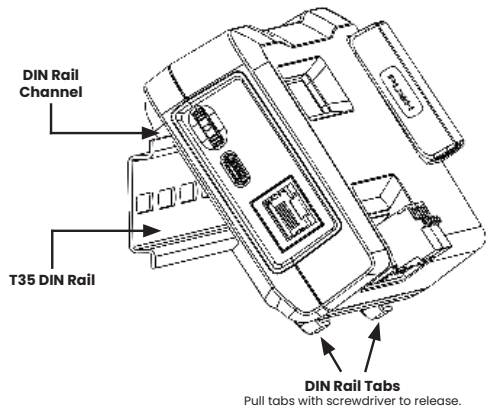
Attach a section of T35 DIN rail within a suitable UL-approved enclosure.

- Leave enough clearance for voltage, CT, and communications wires to be routed within enclosure.
- UL-approved enclosure is customer supplied.



3. Mount

Press the top edge of the meter's DIN rail channel to the DIN rail itself. Then push the meter firmly towards the DIN rail until it clicks into place.

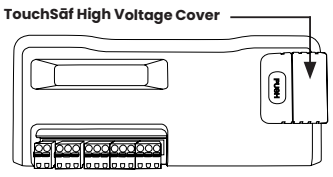


4. Remove HV Cover

Remove the TouchSāf™ high voltage cover and connect voltage leads to the meter.

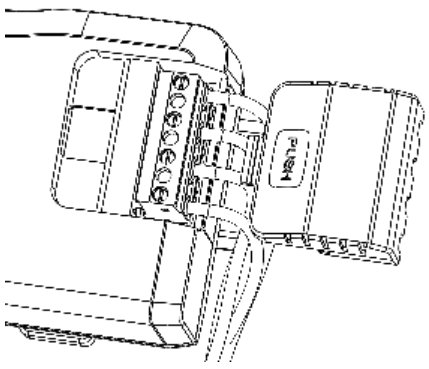
WARNING: RISK OF ELECTRIC SHOCK. DO NOT ENERGIZE METER WITH VOLTAGE COVER REMOVED. FOLLOW ALL STATE AND FEDERAL ELECTRICAL CODES.

- Using 14 AWG THHN, 600VAC rated wire, connect the voltage leads (L1, L2, L3, and N) as necessary to the meter through a dedicated disconnect or circuit breaker. **DO NOT EXCEED 346V L-N or 600V L-L.**
- Mark the circuit breaker as "PowerScout Meter"



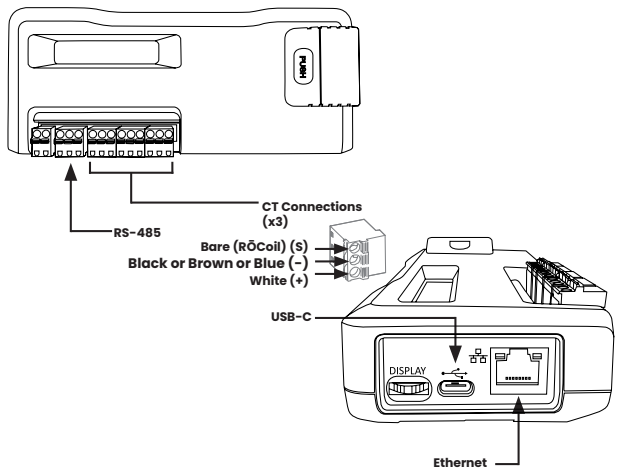
5. Re-attach HV Cover

Meter is IP30 **(TouchSāf™)** with internal cover installed.



6. Connect CT & Communications

Use only 333.3mV (1/3 V) output CTs or DENT RōCoils.



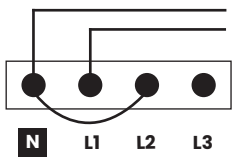
*For an installation overview of the Wall Mount Enclosure, see the full Operator's Guide.

WIRING

HIGH VOLTAGE MAY BE PRESENT. RISK OF ELECTRIC SHOCK. LIFE THREATENING VOLTAGE MAY BE PRESENT. QUALIFIED PERSONNEL ONLY.

These diagrams show the wiring configuration for the Service Types available in the Service drop-down list under "Meter Setup; *Service"* in ViewPoint HD Software.

The PowerScout HD Meter is internally powered through the voltage between L1 and L2. For Single Phase installations, where no L2 exists, connect a jumper from N to L2. This connection provides power to the meter while maintaining Neutral as the metering voltage reference.

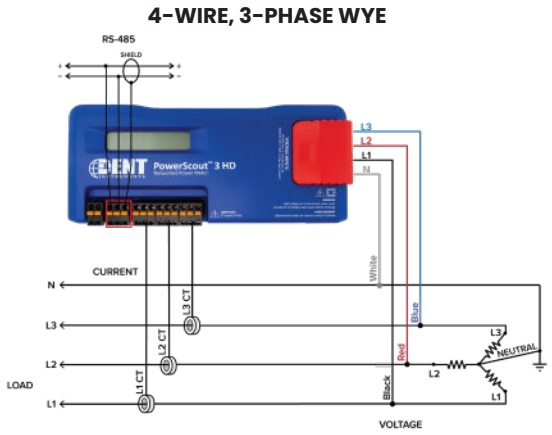


The PowerScout HD Meter uses the Neutral terminal as a voltage reference. For systems without a neutral conductor, connect a wire from the N terminal to ground.

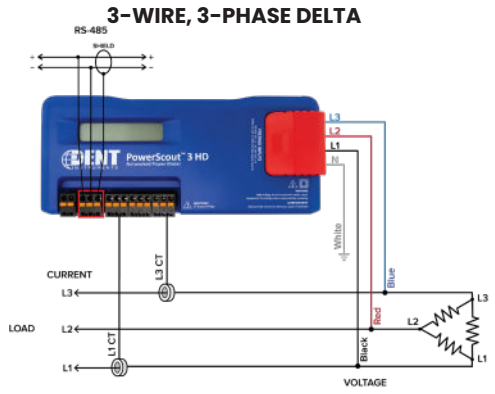
CONNECTING VOLTAGE WIRING AND CTs TO THE METER

This image below represent CT and voltage connections between the PowerScout 3 HD and the common service types. For specific wiring questions outside the scope of this document, contact DENT technical support.

4-WIRE, 3-PHASE WYE



3-WIRE, 3-PHASE DELTA

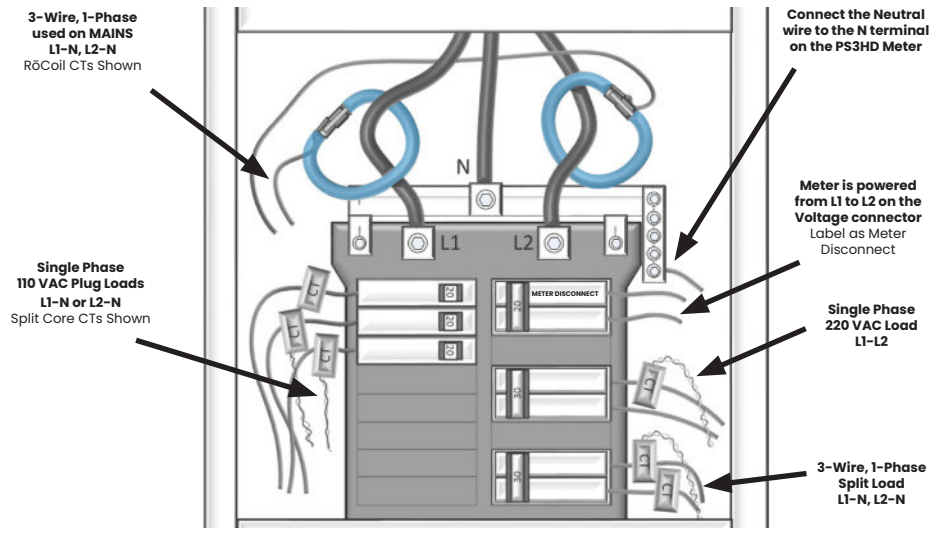


EXAMPLE 1

Wiring the PowerScout in a 3-Wire, Split Phase Service Panel.

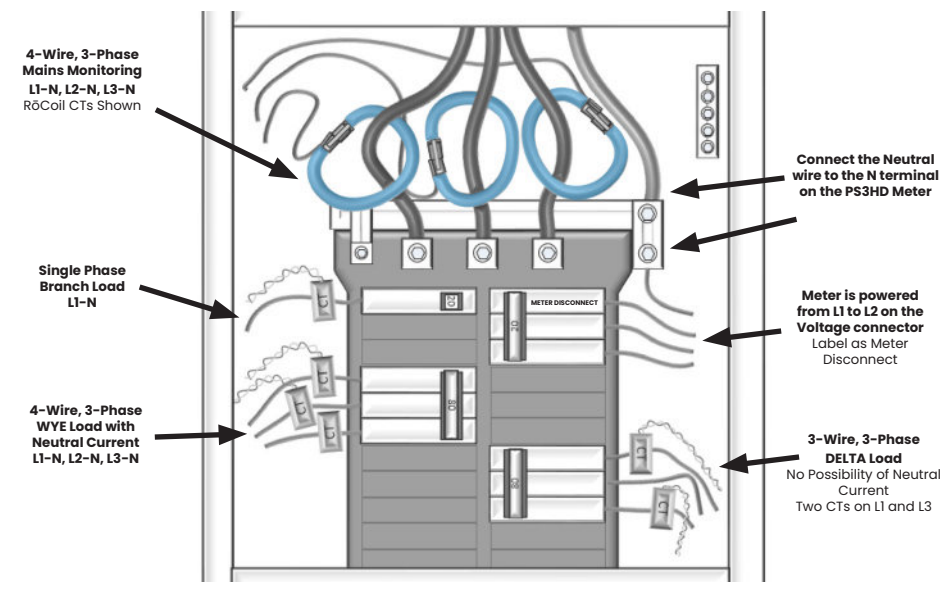
TYPICAL LOADS:

Single Phase L1-N or L2-N 110 VAC: Lighting, Appliance, or Living Zone.
Single Phase L1-L2 220 VAC: Water Heater or Equipment with no Neutral wire.
Split Phase L1-L2 220 VAC: Service Entrance, Dryers, or Equipment with Neutral wire.



EXAMPLE 2

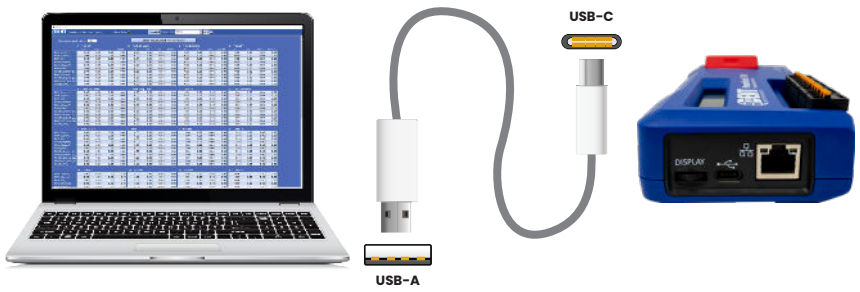
Wiring the PowerScout in a 4-Wire, 3-Phase Service Panel



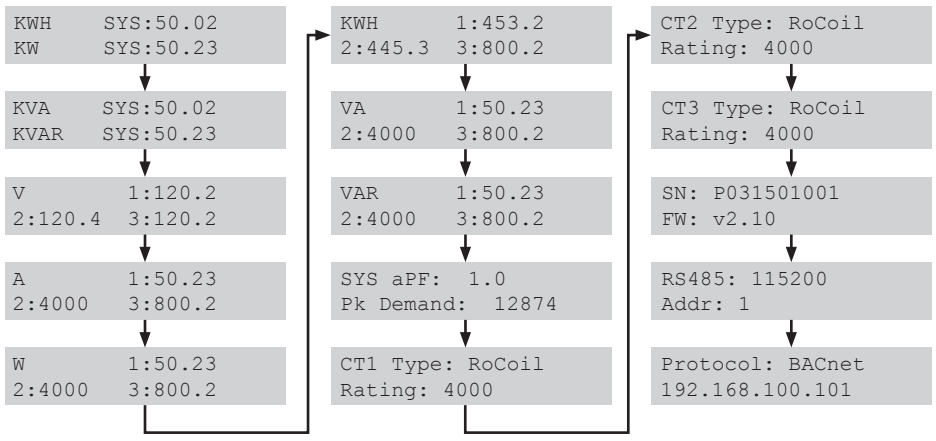
SETUP THE METER WITH A PC

1. Connect a powered, or unpowered, PowerScout meter to a USB port of your computer with a USB A to USB C cable (provided). [Note: The PC will power the meter for setup even without AC mains power connected.]
2. Launch the ViewPoint HD application and, when prompted, click “Connect over USB”
3. The meter will now be communicating with the PC
4. Use ViewPoint HD to configure the meter and view real-time data to verify the installation is wired correctly

The meter can also be setup without using ViewPoint HD and instead using a web browser. Plug in the USB cable and set the browser to 169.254.1.5.



NAVIGATING THE METER’S DISPLAY



USING THE LCD SCREEN

The PowerScout 3 HD features a navigation thumb wheel which allows the user to scroll up or down and select menu options by pressing the thumb wheel. While the user interface allows for checking real time values, it does not allow for meter configuration. ViewPoint HD is the required configuration tool for the PowerScout 3 HD.

FOR MORE INFORMATION

- www.DENTinstruments.com
- 1.800.388.0770
- support@DENTinstruments.com

SAFETY SYMBOLS

DENOTES HIGH VOLTAGE. RISK OF ELECTRIC SHOCK. LIFE THREATENING VOLTAGES MAY BE PRESENT. QUALIFIED PERSONNEL ONLY.

Denotes caution. See full Operator’s Guide for description of the meanings.

Equipment protected throughout by double insulation or reinforced insulation.

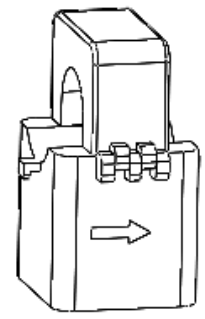
Contains additional information pertinent to the current subject.

WARNING

DO NOT EXCEED 346V Line-to-Neutral or 600V Line-to-Line. This meter is equipped to monitor loads up to 346V L-N. Exceeding this voltage will cause damage to the meter and danger to the user. Always use a Potential Transformer (PT) for voltages in excess of 346V L-N or 600V L-L. The PowerScout HD is a 600 Volt Over Voltage Category III device.

- RISK OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH. CAREFULLY READ AND FOLLOW INSTRUCTIONS.
- THIS METER MAY CONTAIN LIFE THREATENING VOLTAGES. RISK OF ELECTRIC SHOCK. QUALIFIED PERSONNEL ONLY. USER MUST DISCONNECT ALL HIGH VOLTAGE WIRING BEFORE SERVICING THE METER WITH THE HIGH VOLTAGE COVER REMOVED.
- TO AVOID FIRE, SHOCK, OR DEATH, TURN OFF ALL POWER SUPPLYING EQUIPMENT BEFORE WORKING ON OR INSIDE THE EQUIPMENT. USE PROPERLY RATED VOLTAGE SENSING DEVICE TO CONFIRM POWER IS OFF.
- FOLLOW SAFE ELECTRICAL WORK PRACTICES. FOLLOW ALL APPLICABLE LOCAL ELECTRICAL CODES.
- THIS EQUIPMENT MUST BE INSTALLED AND SERVICED BY QUALIFIED ELECTRICAL PERSONNEL WITH THE REQUISITE KNOWLEDGE, TRAINING, AND EXPERIENCE RELATED TO THE INSTALLATION AND OPERATION OF THIS EQUIPMENT.
- PRODUCT MAY USE MULTIPLE VOLTAGE/POWER SOURCES. BE SURE ALL SOURCES OF POWER HAVE BEEN DISCONNECTED BEFORE SERVICING.
- DO NOT DEPEND ON THIS PRODUCT FOR VOLTAGE INDICATION.

CURRENT TRANSFORMER BASICS



To ensure safety and maintain UL listings, use only CTs provided by DENT Instruments.

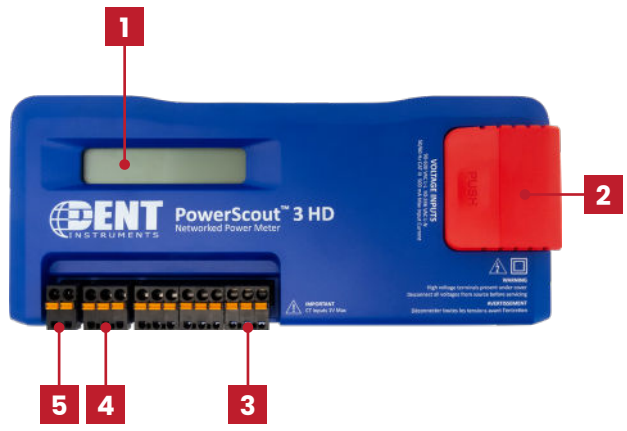
- Do not use on services greater than 600VAC
- CTs are 333.3 mV (1/3 V) output voltage, or DENT RōCoil
- Select CTs of appropriate current range for the circuit (5-120% of CT rating recommended)
- Ensure arrow points towards load (or as instructed by CT label)
- Place CT on first conductor of voltage reference. Example: for L1-L2 circuits without neutral, place CT on L1
- Observe wiring color and polarity: For millivolt CTs, the white wire is (+) and the black wire is (-). For RoCoils, the white is (+), brown or blue is (-), and the bare (shield) wire connects to the terminal marked “S”.

POWERSCOUT 3 HD METER ANATOMY

The PowerScout 3 HD is available in two configurations. The DIN-Rail Mount Enclosure is to be mounted in a UL-approved electrical enclosure while the Wall Mount Enclosure is ready to be mounted on the wall next to an electrical panel and does not require an additional enclosure.

1. Display
2. High Voltage Cover
3. CT Connections (x3)
4. Serial RS-485
5. Alarm
6. Thumb Wheel for Menu Navitation
7. USB-C
8. DIN Rail Channel
9. Ethernet Port
10. 0.5” Conduit Connection (x3)
11. Wall Mount Enclosure Top
12. Mounting Holes
13. PS3HD Circuit Board
14. Voltage Connection
15. High Voltage Cover (transparent in photo)
16. ABS Plastic Enclosure

DIN Rail Mount Enclosure | PS3HD-R-D-N



Wall Mount Enclosure | PS3HD-C-D-N

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