

Using Verdigris with a 480V Delta Panel

Verdigris data transmitters tap voltage and power through a 3-phase, 4-wire terminal block. Verdigris natively supports 4 wire configurations. **In 3-phase 3 wire delta configurations a 3rd party accessory may be needed.** High voltage delta panels are common in motor control centers. If in doubt, you should consult an electrician.

This document provides two options for installing on 480V Delta Panels.

Option 1:

Tap a voltage transformer to step-down voltage.

Option 2:

Tap a nearby 277/480V Wye panel or a nearby low voltage panel, wall outlet, or conduit.



The Verdigris data transmitter natively supports:

1. Split-phase 100-277V
2. Three-phase 120/208V
3. Three-phase 240/416V Wye
4. Three-phase 277/480V Wye

Option 1: Tapping a Transformer

Step-down transformers can vary in reduced voltage, phases measured, and by synthetic or generated neutral. These variations impact installation complexity, accuracy, and aspects of power quality analysis. *If you need assistance selecting the right one for you, consult your Verdigris sales representative.*

Equipment Needed

1. 480V Transformer
2. Junction Box
3. Conduit
4. 600V electrical wire (14AWG-12AWG should be sufficient)

Directions

1. Locate an installation point for a junction box. The installation point should be less than 2 meters from the sensed panel.
2. Install the transformer near the junction box.
3. Run two available phases from the panel to the transformer.
4. Run the step-down transformed voltage through conduit to the junction box.
5. Route the Verdigris extension cables from the panel to the junction box via conduit.
6. Attach the data transmitter to the junction box using a 1" knockout if needed.



a small transformer ([link](#))



a large transformer

Option 2: Tapping a wall outlet

Equipment Needed

1. Junction Box
2. Conduit
3. 600V electric wire (14AWG-12AWG should be sufficient)

Directions

1. Locate a nearby plug outlet or conduit running low voltage (<300V) near the panel.
2. Locate an installation point for a junction box or pull can as close to the panel as possible. The installation point should be less than 2 meters from the sensed panel.
3. Run all available phases (1, 2 and 3) from the outlet circuit and neutral through conduit from wall outlet to the junction box or can.
4. Mount the junction box or can.
5. Route the Verdigris extension cables from the panel to the junction box via the conduit.
6. Attach the Verdigris system to the junction box. Connect Neutral to "N" on the Verdigris system. The first voltage phase should be placed into "B". The second and third (if available) should be placed in "A" and "C". If the second and third are not available, "A" and "C" should be left unconnected.
7. Attach the Verdigris data transmitter to the outside of the newly installed junction box through a 1" knockout.

