

Using Verdigris with a 480V Delta Panel

The voltage from a 480V delta configuration panel would be too great for the Verdigris system to function properly. This document provides two options for installing on 480V Delta Panels.

Wiring ground to neutral is not permitted in most cases, so supporting 480V delta configurations requires:

Option 1:

Tapping a nearby 277/480V Wye panel or a nearby or a nearby lower voltage panel, wall outlet, or conduit.

Option 2:

Tapping a voltage transformer to step down the voltage.



Verdigris systems tap voltage and power through a 3-phase, 4-wire terminal block and can be safely powered up on the following:

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 from a Transformer

Several options are available for using transformers to enable Verdigris metering on 480v delta panels and can be evaluated with consideration for end-use functionality and accuracy.

Equipment Needed

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

Directions

1. Locate an installation point for a Junction Box or Can as close to the panel as possible. (<less than 2 meters away from the panel and less than 3 meters away from the farthest circuit to be monitored)
2. Install the transformer close to the Junction Box.
3. Run two of the phases available from the panel to the transformer.
4. Hook up the transformer and run the transformed voltage (240V) through conduit to the junction box.
5. Route the CT wires from the panel to the junction box via conduit.
6. Attach the Verdigris system to the junction box using a 1" knockout if needed.



a small transformer ([link](#))



a large transformer

Option 2: Tapping from a wall outlet

Equipment Needed

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

Directions

1. Locate a nearby plug outlet or conduit running low voltage power (<300V) near the panel.
2. Locate an installation point for a Junction Box or Can as close to the panel as possible. (less than 2 meters away from the panel and less than 3 meters away from the farthest circuit to be monitored).
3. Run all phases available (1, 2 or 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 on the wall.
5. Route the CT wires 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.

