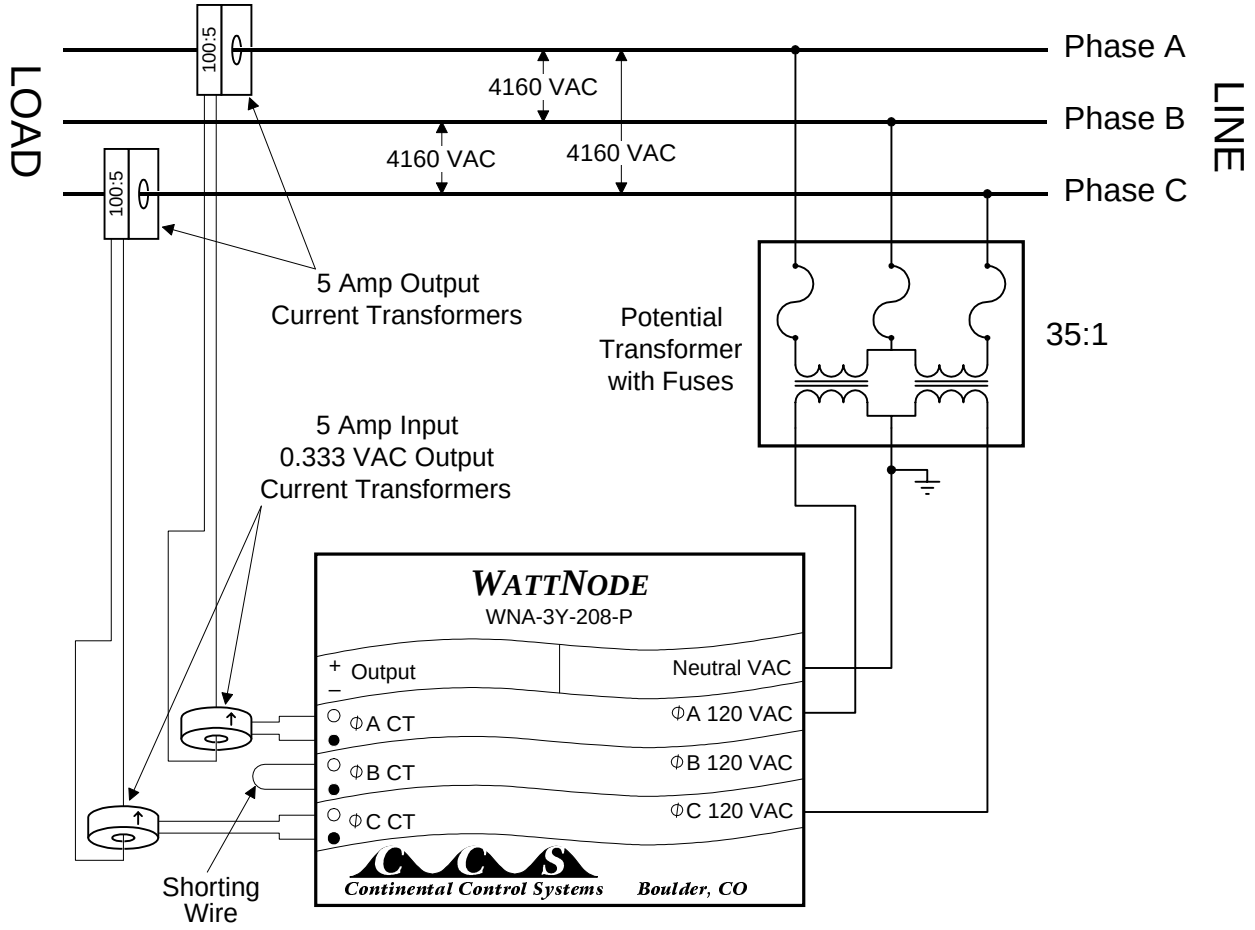
App Note: Using the WattNode® with Potential Transformers 2/1/1999

This diagram shows the WattNode connected to measure a three-wire 4160 VAC circuit using a potential transformer (PT) with fuses. **Due to the high voltages involved, have a licensed electrician install this configuration, and only use current transformers (CTs) and PTs rated to handle the line voltages (4160 VAC in this case).** The PT used in this example is a Flex-Core (phone 614-889-6152) model 3PT3-60-422. Because the PT has a 35:1 ratio, the output of the WattNode must be scaled up by a factor of 35 to compute the power and energy. Also note that the center terminal of the PT is grounded for safety. The 0.333 VAC output CTs that CCS sells are only rated for 600V wires, so you will need to use 5kV rated CTs on the high voltage wires, and then run the 5 amp output of the these CTs through the CTT-0300-005 that we sell to convert to 0.333 VAC. The scale factors to compute power and energy will be the same as when you use 0.3333 VAC output CTs. For example, if you are using 100:5 (100 amp input, 5 amp output) CTs, then anywhere you need the CT size (rated amps), just use 100.For good accuracy, it is also important that you purchase a PT rated to handle a 3 VA burden, because the WattNode power supply draws up to 3 VA.



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