

Measuring Multiple Circuits with One Current Transformer (CT)

Products: Meters

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Summary: This document establishes guidelines for measuring multiple circuit conductors using one Current Transformer (CT).

Information: **High Level Theory**

One CT can be used to measure multiple circuit conductors if all the conductors are associated with the same phase. The sum of each conductors' current must not exceed the CT amperage or circuit breaker ratings. The same phase conductors must pass through the CT in the same direction. The CT full scale current rating must be equal to or greater than the total load current of all the conductors threaded through the CT. The total load current is calculated by adding up the maximum rated current for each load.

Pros

- Cost reduction
- Aggregate similar loads into a single reading

Cons

- Reduced accuracy at low current levels
- More likely to have installation errors
- Cannot view each load individually

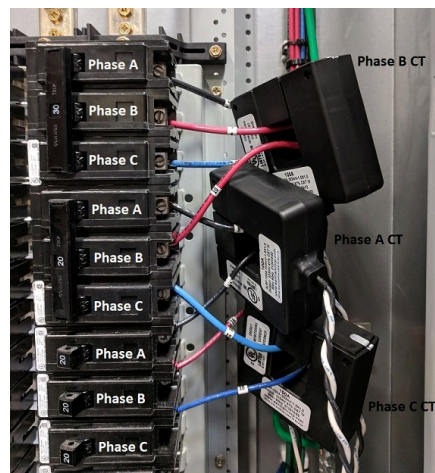


Figure 1: 3P 120VAC Panel Multiple Conductor CT Monitoring

Contact: For more information, contact EMC&A Technical Support at (800) 959-6004.

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