LOCATING PHASE CONDUCTORS IN A ZERO-SEQUENCE-CT WINDOW

An ideal window-type current transformer responds only to the sum of the currents flowing through its window; however, an actual current transformer may saturate if the phase currents are too large. This results in current transformer output even if the sum of the phase currents is zero. Saturation can be minimized by choosing a current transformer (CT) with an adequate core and symmetrically locating the phase conductors in the center of the CT window as shown in Figure 1.

- If shields, drain, ground, or ground-check wires pass through the CT, return them through the CT before termination.
- Firmly secure the conductors in the center of the CT window so they cannot be moved accidentally or under fault conditions.
- The gap between the conductors and the CT should be at least 12.7 mm (0.5 inches). It is preferable to have a gap of 25.4 mm (1 inch) or more.
- For multiple conductors per phase, arrange the conductors as shown in Figure 1b. A spacer with the same diameter as the conductors should be used to separate phase conductors.

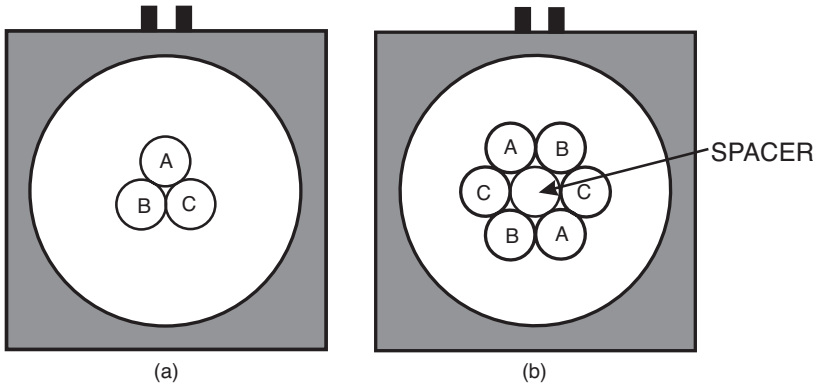


Figure 1: Zero-Sequence-CT Cable Arrangements

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