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## Line-to-Neutral Voltage on Ungrounded Distribution Systems

Low voltage ungrounded distribution systems can continue to operate with one grounded phase. This is not a desired condition, but rather a temporary condition allowing continued operation in a reduced reliability state. Immediate action should be taken to isolate and repair the grounded component. Line-to-neutral voltage measurements on ungrounded distribution systems can be used to identify the grounded phase because the affected phase line-to-neutral voltage will drop to a very low value while the unaffected phases will rise in value to meet the line-to-line voltage. The more common four-wire grounded distribution systems will not see grounds through line-to-neutral voltage measurements and will have to rely on de-energized off-line tests to determine the insulation condition. For those using the *MTAP2* on ungrounded distribution systems, these varying line-to-neutral measurements will not pass through the delta configured transformer. You will need to rely on installed ground detectors or directly connected tests to quantify the grounded condition. All other fault zones still apply such as the power quality, power circuit, stator, rotor, and air gap analysis.

For PdMA products supporting power analysis testing through test access panels visit <http://www.pdma.com/PdMA-MTAP2-MTAP3.php>

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