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## Failure Criteria

When developing a testing program, it is imperative to define “failure” criteria for each component to be tested. For example, a “Voltage Failure” can be defined as a system voltage that exceeds upper or lower boundaries. A 480 Volt system may have failure points of +/- 5% (504V/456V respectively), which if exceeded, would constitute a “Voltage Failure”. Although typical components such as voltage, current, % imbalance, etc. are considered, any system parameter being measured that is determined to be value added should have “failure criteria” defined. For online analysis, some of these may be Total Harmonic Distortion (THD), Harmonic Voltage Factor, Power Factor, etc. For offline analysis, some parameters that may be considered for failure criteria are: Capacitance-to-ground (CTG), Resistance-to-ground (RTG), winding or system resistance, etc. The PdMA MCE-Gold software establishes default alarm setpoints for the failure criteria of each measured value. Remember though, MCEGold allows you to adjust these values as necessary to better fit your applications and failure criteria.

You are invited to submit an Electric Motor Testing Tip of your own and receive a free PdMA mug or hat if we publish it! Contact Lou at 813-621-6463 ext. 126 or [lou@pdma.com](mailto:lou@pdma.com).

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