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Power Testing Medium/High Voltage Motors

When performing power analysis testing on medium or high voltage motors, many companies have installed some form of test access panel for efficiency and safety purposes in compliance with the NFPA 70E. They commonly acquire voltage from the secondary of the power transformer (PT) and use that same voltage signal for all tests taken on each of the motor starters connected to that MCC. However, the acquired current signals are taken independent from each starter. A frequently asked question is whether or not the single access point for voltage is sufficient for all the starters on the MCC. Although there are potential problem locations between the PT access point and the motor, the independent current acquired per starter will alert that a problem exists. Offline testing may be required to confirm a power circuit anomaly resulting in a voltage drop in one of the phases.

For more general testing considerations on medium/high voltage motors go to http://www.pdma.com/pdfs/appnotes/0303-Med_HV.pdf on the PdMA Web site. For PdMA products supporting power analysis testing through test access panels visit <http://www.pdma.com/PdMA-MTAP2-MTAP3.php>

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.

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