



# Electric Motor Testing Tip of the Week

revolutionizing *electrical* reliability

May 30, 2006

## Electric Motor Fault Zone Analysis - Power Circuit

The 2<sup>nd</sup> of the six electric motor fault zones is Power Circuit. A 1994 demonstration project on industrial power distribution systems found that connectors and conductors were the source of 46% of the faults reducing motor efficiency. Many times a motor, although initially in perfect health, is installed into a faulty power circuit. This causes problems like sequence currents, voltage imbalances, current imbalances, etc. As these problems become more severe, the horsepower rating of your motor drops, causing temperatures to increase and insulation damage to occur. It is important to evaluate the resistance and inductance of a motor circuit once a motor is installed for service. High imbalances of voltage, current, resistance or inductance could indicate problems with the motor or power circuit.

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**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 Martindale at 813-621-6463 ext. 126 or [lou@pdma.com](mailto:lou@pdma.com).**

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