Electric Motor Testing Tip of the Week

revolutionizing electrical reliability

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Electric Motor Fault Zone Analysis - Stator

The 4th of the six electric motor fault zones is Stator. Stator refers to the insulation between the turns, coils, and phases within the slots and end turns of the electric motor. Although this insulation is the same as that mentioned in the previous insulation fault zone tip, the failure mechanisms are different and must be assessed in a different way. Turn-to-turn or phase-to-phase shorts can be catastrophic to the motor and not necessarily be detected by the standard megohmeter. Excessive inductive imbalance, resistive imbalance, vibration, partial discharge, or poor insulation quality can lead to stator failure and should be monitored regularly to prevent a shortened life of the electric motor stator.

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.