



Electric Motor Testing Tip of the Week

revolutionizing *electrical* reliability

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Electric Motor Fault Zone Analysis - Rotor

The 5th of the six electric motor fault zones is Rotor. Rotor health refers to the integrity of the rotor bars, rotor laminations, and end rings of the squirrel cage induction rotor. In the 1980s, a joint effort between EPRI and General Electric showed that 10% of motor failures were due to rotor anomalies. The rotor, although responsible for only a small percentage of the motor problems, can influence other fault zones to fail. Starting a motor with a broken or cracked rotor bar can create intense heat to be generated around the vicinity of the break. This can spread to other rotor bars and destroy the insulation around the nearby laminations or even the surrounding stator windings. Extended start-up times, high pole pass-frequencies in current or vibration and erratic variations of stator inductance are indications of a rotor defect.

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.

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