



Electric Motor Testing Tip of the Week

revolutionizing *electrical* reliability

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Synchronous Motor Start-Up

Synchronous motors typically start as a normal squirrel cage induction motor through use of amortisseur windings. These windings are more like solid bars and are designed to act as rotor bars during the start-up process. Once the rotor has accelerated to near synchronous speed, DC power will be applied to the large DC fields located underneath the amortisseur winding, synchronizing the rotor, and stator magnetic fields. Increased start-up times, pole slip, and erratic acceleration are indications of damaged or defective amortisseur windings. Historical In-Rush testing that records the stator's RMS current during start-up can greatly assist in determining if these windings have degraded over the life of the motor.

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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