



Electric Motor Testing Tip of the Week

revolutionizing *electrical* reliability

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Six Methods of Rotor Evaluation Using MCEMAX

The six primary methods of rotor evaluation using the MCEMAX include pole-pass frequency (Fp) sideband, 5th harmonic, demodulated pole-pass frequency, rotor influence check (RIC), in-rush/start-up, and average inductance. We are going to detail each method and provide examples of each over this six part series of tips.

Part Six: Average Inductance

Broken rotor bars result in higher reflected impedance from the rotor and changes in the starting and running currents. Additionally, the residual flux changes result in elevated average inductance. Increasing trends in average inductance should be investigated and correlated with other MCEMAX tests.

For examples of increasing values in average inductance caused by broken rotor bars see page 4 (AC Standard Test) of http://www.pdma.com/PDF/Articles/Fault_Zone_Rotor.pdf

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.