



Electric Motor Testing Tip of the Week

revolutionizing *electrical* reliability

August 6, 2007

Establishing Warning Settings for Resistance Imbalance

The precision in motor manufacturing today, especially in larger motors, is obvious when you look at the comparison of phase resistance. It is not unusual to see a large three-phase induction motor with phase resistances perfectly balanced or close, with imbalances calculating well below 0.1%. This being the case, the balance of resistance measurement can be a super sensitive indicator of the changing condition of the motor windings.

Although we direct your attention more to inductance and impedance for identifying winding degradation, strong consideration should be given to establishing a change from baseline for balance of resistance caution and alarm set points. The new balance of resistance default warning settings for assets added to the MCEGold software are caution at a 50% increase and alarm at 100% increase.

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.