



A Leader in Electric Motor Testing

Tip Of The Week

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One Step at a Time

The MCE[®] Step Voltage test was designed to be an over voltage test primarily used for troubleshooting ground wall insulation issues on low voltage motors. Although some analysts use it for quantitative comparison to locally established ground wall current limits on medium voltage motors, it is most commonly used following an acceptable Resistance-To-Ground (RTG) reading where remaining doubts about the insulation system prevail. A perfect example would be following a motor trip. If after the motor trips, the RTG test indicates that the insulation system is acceptable for continued operation but the analyst does not agree, then a controlled over voltage test can be performed to further alleviate any concerns. PdMA recommends starting with a Polarization Index test with the initial voltage level being equal to or less than 30% of the maximum test voltage. Once the insulation resistance and polarization index indicate the insulation is suitable for over voltage testing, the controlled over voltage step test can commence.

To see a variety of insulation related case studies visit the PdMA YouTube Channel at:
<https://www.youtube.com/channel/UC-cUONWaudkKReNwCOPPXMq/feed>

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.

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