Electric Motor Testing Tip of the Week

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Low Resistance-to-Ground Readings in Wound Rotor Motors

When performing an AC Standard test on a Wound Rotor Motor (WRM), it is important to remember that the Mohm readings show the point of least resistance-to-ground in the circuit. The Polarization Index (PI) test will also be affected by this, showing a profile of that same point of least resistance. If test results show a low resistance-to-ground level, a closer look into the circuit (and the testing procedures) can provide us with hope, and often, an easy or low cost fix.

A couple of culprits of low resistance-to-ground readings are carbon deposits from brush wear or a poorly insulated connection point.

In order to get the best readings, keep the following things in mind when testing a WRM rotor:

- Visually inspect the rotor around the rings and connections to identify potential problems.
- Lift ALL brushes and connect directly to the slip rings.
- When possible, connect the ground clip directly on to the shaft.

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.