



Electric Motor Testing Tip of the Week

revolutionizing *electrical* reliability

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Motor Testing With Semi-conductor Type Motor Controllers

There are many types of drives that can be used to control your motor's operation; reduced voltage soft starts (RVSS), DC drives, etc. By understanding the mechanical configurations and operation of these devices, it is easy to apply your knowledge of the test to monitor and trend their condition. They all typically have SCR component front ends, so by performing a "Power Analysis" capture on the line side, you can collect valuable information about those components. Testing on the load side can be tricky as DC drives don't provide an AC output and RVSS always have some voltage drop across the SCRs. In this trended information, numbers may be less important than waveforms.

Changes in the current waveforms are indicative of the current carrying devices and should be evaluated as frequently as possible to catch potential problems before they become catastrophic.

Changes in the voltage waveforms can be indicative of gate drive/firing circuit issues.

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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