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## Don't Forget Reliability

Given the sometimes frenzied movement in the effort to go green, maintenance management may overlook the fact that maintaining reliability can pay dividends towards efficiency while improving the bottom line. Over the next two weeks this Don't Forget Reliability six tip series will explore the impact of each of the six fault zones on motor efficiency.

### Part Four – Stator

Sometimes combined with the insulation fault zone, a stator fault (turn-to-turn or phase-to-phase imbalance) can be a performance limiting fault or a catastrophic failure. Identifying conditions conducive to stator faults early is critical for life expectancy. To maintain the designed operating efficiency of a three phase AC stator winding it must be symmetrically wound, well insulated, and supplied with balanced power at the right voltage level. Anything short of those parameters will result in elevated temperatures, more power drawn to deliver the same work, and worst case an outright failure.

For more information on the effects of reliability on motor efficiency go to [http://www.pdma.com/pdfs/Articles/WhitePapers/Motor\\_Efficiency\\_and\\_Fault\\_Zone\\_Analysis.pdf](http://www.pdma.com/pdfs/Articles/WhitePapers/Motor_Efficiency_and_Fault_Zone_Analysis.pdf).

To watch a short discussion on the Stator Fault Zone go to [http://www.pdma.com/webinars/Stator\\_Fault\\_Zone/Stator.html](http://www.pdma.com/webinars/Stator_Fault_Zone/Stator.html).

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](mailto:lou@pdma.com).