

March 28, 2011

For the month of March we have tested your knowledge, next week we will return to our regular Tip of the Week format.

The March 28, 2011, question: We discussed last week that the characteristic current flow to a three phase AC induction motor during the start-up consists of a rapid peak (In-Rush) of current followed immediately by a lower plateau (Start-Up) of current, which decreases gradually to steady state current. You will remember that the total effect from start to steady state is called the In-Rush/Start-Up. Last week we discussed the affect of a voltage drop on In-Rush Current. This week we will focus on the affects of changing voltage on steady state current after the In-Rush/Start-Up. If the voltage supplied while starting a motor is *increased* 2-3% of normal voltage, what affect does the increased voltage have on the steady state current?

- A. Increased steady state current
- B. Decreased steady state current
- C. No change

Answer: B. Decreased steady state current. Increased voltage up to 5% of normal voltage, when applied to an AC Induction motor, will result in decreased steady state current. However, voltage increases beyond 5% of normal voltage will result in an increase in steady state current.

If you answered incorrectly and feel you need additional training OR if you answered correctly and still feel you need additional training, we can help you. Our training department offers classes on various topics, click here (<http://www.pdma.com/PdMA-training.php>) to go to the training page. We also have a Data Interpretation Book available to help you. Contact PdMA (pdma@pdma.com) or call (813) 621-6463 for information.

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.