

**March 21, 2011**

For the four weeks in March we are returning to our popular Test Your Knowledge series.

**The March 21, 2011, question:** 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. The total effect from start to steady state is called the In-Rush/Start-Up. If the voltage supplied while starting a motor is reduced by 5% of normal voltage, what affect does the reduced voltage have on the peak In-Rush current?

1. Increased In-Rush Current
2. Decreased In-Rush Current
3. No change

The correct answer is Decreased In-Rush Current. A lower voltage applied to an unchanging circuit resistance will result in a lower In-Rush 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](mailto: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](mailto:lou@pdma.com).