

June 6, 2011

Test Your Knowledge

For the next two weeks we will be testing your knowledge of electric motor testing. See how you do.

Reactive Power

Reactive power flows which way in a system supplying an overexcited synchronous motor?

- A. Downstream (from generator to motor)
- B. Upstream (from motor to generator)
- C. Both (oscillates back and forth)
- D. None of the above

The correct answer is B. An overexcited synchronous motor acts like a capacitor and “supplies VARs (Volt Amperes Reactive)”. Thus, the synchronous motor is actually “supplying” reactive power referred to as capacitive reactive VARs. This results in a leading power factor condition in which the current leads the voltage. Synchronous motors are sometimes used to correct bad power factor situations due to their ability to supply varying capacitive reactive power which is based on the amount of over excitation.

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.