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# Tip Of The Week

**August 22, 2011**

## Test Your Knowledge, Part 9

The line current drawn by an inductive load consists of two components: magnetizing current (reactive power) and power-producing current (real power). Power Factor is a measure of how effectively electrical power is being used. Which of the following best describes Power Factor?

A. = Real Power/Apparent Power
B. = Real Power/Magnetizing Current
C. = Apparent Power/Lagging Power
D. None of the above

The correct answer is A. Real Power and Reactive Power together make up Apparent Power. Power Factor is the ratio of Real Power to Apparent Power. A high power factor indicates efficient use of the electrical distribution system, while a low power factor indicates poor use of the system. Some ways to improve power factor on your system are: use the highest-speed motor that an application can accommodate – power factor decreases as the number of poles increases; size motors as close as possible to the horsepower demands of the load; add power factor correction capacitors to your in-plant distribution system.

Reference: *Energy Management for Motor Driven Systems*, Office of Industrial Technologies, U.S. Department of Energy

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.