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More IS Better

When testing motors, the more knowledge a technician has about the nominal operation of the system or application the better. When collecting power test data, knowledge of the nominal power factor along with other parameters is important. Without knowledge of these parameters, in some cases, inaccurate test data may be collected. Recently a customer connected the current transformers to an *MTAP2* in reverse, yet, when reviewing the results page, the data such as the expected values of voltage and current along with their imbalances all looked good. The only parameter that really looked suspicious was the low power factor which was on the order of 0.2. Further investigation determined this particular customer had not only connected the current transformers to the *MTAP2* in reverse, but had connected them to the wrong phases. Thus, when looking at the power phasor diagram, everything looked reasonably good (i.e., phasors were near where one would expect them to be). After discovering the issue, everything was corrected by inverting and swapping probes. Once this was done, the results, including the power factors were as they should be. If the technician had more knowledge of the expected power factor of the system, they could have had the installation fixed a long time ago.

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.