



A Leader in Electric Motor Testing

Tip Of The Week

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Good PF Failed Motor

The installation of power factor (PF) correction capacitors is common place throughout industrial facilities. They are installed to prevent large inductive loads from lowering plant PF to a level where the utility starts to impose demand charges. Often these demand charges can be extremely expensive.

It is important to know if and where PF correction caps are installed, when performing EMAX tests on these large AC Induction motors. PF capacitors can have a big influence on the EMAX test equipment measured values as well as impact the ability for the overload protection to perform properly. If your motor test data shows an unusually high PF for the given load you may be testing downstream of the capacitors. PF capacitors should be installed upstream of the overload protection to ensure the overloads will act to shutdown the motor in an overloaded situation. PF capacitors installed downstream of the overloads will improve the distribution PF, but can hide the actual current demand from the overloads allowing the motor to run in an overloaded situation with no protection. No one wants a good power factor at the expense of a failed motor.

So if you are having PF caps installed and they must be installed downstream of the overloads, then you must change your overload protection as well.

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.

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