



A Leader in Electric Motor Testing

Tip Of The Week

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The Need For Speed

From eccentricity to efficiency, motor running speed and motor nameplate speed are used in a variety of ways within the PdMA software to assist the analyst in trending and troubleshooting the electric motor health. Ensuring your MCEGold® software is optimized starts with the correct nameplate speed. Nameplate speed is utilized in running speed search windows, pole-pass frequency identification, and even de-energized MCE® testing to ensure proper resolution during a Rotor Influence Check (RIC). A quick way using the RIC to identify that an incorrect speed has been entered is to verify that only one cycle or pole is passed for the entirety of the recommended test. The RIC will self-calculate the recommended rotating degrees between each measurement based on a predefined test resolution and the number of poles in the motor being tested. For a four pole motor each pole group takes up 90° and for a six pole motor the span is 60°. If properly performed the inductance of each phase of the three-phase motor will complete a single sine wave through the calculated degrees of a pole group. Any less, or any more, than a complete sine wave could be a product of improperly entered nameplate speed. To read an article discussing nameplate speed, pole groups and RIC tests visit our website at www.pdma.com/pdfs/Articles/Rotortest.pdf

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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