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What About Servo Motors?

Many applications today call for the services of a Servo Motor. From automotive manufacturing robots to precision tooling of printed circuit boards Servo motors are plentiful and critical. So what can we do with this special application motor in terms of reliability testing? We can do many of the same things we do for our standard AC Induction or DC motors today. However, some test considerations include:

•Do not exceed 500v testing winding insulation in the vicinity of a permanent magnet Servo motor.

•Build a test jack from a spare power supply connector to the Servo motor with labels identifying the appropriate windings under test.

•Be aware that a permanent magnet rotor often rotates during the phase resistance measurement due to the magnetic field developed in the stator windings.

•You cannot perform a RIC test when de-energized if the brake is engaged, which is often the case.

•If your Servo application is a brief movement from one position to the other, the six-channel In-Rush/Start-Up test will be your most effective tool.

For more special application guidelines contact PdMA Corporation 813-621-6463 or pdma@pdma.com and ask for a MCEMAX® Data Interpretation book.

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. 166 or lou@pdma.com.

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