



GE Energy

Functional Testing Specification

*Parts & Repair Services
Louisville, KY*

LOU-GED-531X112PSA-A

Test Procedure for a AC300 Main Control Card

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A	Initial release	R. Duvall	8/9/2002
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1. SCOPE

1.1 This is a functional testing procedure for a Card.

2. STANDARDS OF QUALITY

2.1 Refer to the current revision of the IPC-A-610 standard for workmanship standards.

3. APPLICABLE DOCUMENTS

3.1 The following document(s) shall form part of this specification to the extent specified herein. Unless otherwise indicated, the latest issue shall apply.

3.1.1 Check board's electronic folder for more information

4. ENGINEERING REQUIREMENTS

4.1 Equipment Cleaning

4.1.1 Equipment should be clean and free of debris prior to applying power unless performing an initial check. Refer to site specific SRA's for cleaning guidelines.

4.2 Equipment Inspection

4.2.1 Equipment should be visually inspected for any defects prior to applying power. This inspection should include the following as a minimum:

4.2.1.1 Wires - broken, cracked, or loosely connected

4.2.1.2 Terminal strips / connectors - broken or cracked

4.2.1.3 Components - visually damaged

4.2.1.4 Capacitors - bloated or leaking

4.2.1.5 Solder joints - damaged or cold

4.2.1.6 Circuit board - burned or de-laminated

4.2.1.7 Printed wire runs / Traces - burned or damaged

5. EQUIPMENT REQUIRED

5.1 The following equipment is required to perform the process requirements. Equipment may be substituted provided that all accuracy's and test ratios are equivalent or better.

Qty	Reference #	Description
1		Fluke 87 DMM (or Equivalent)
1	H033764	AC 300 Test Fixture

6. TESTING PROCESS

6.1 Setup

- 6.1.1 Set berg jumpers on the card same as test card.
- 6.1.2 Set the pots on card same as test card
- 6.1.3 Find test points at bottom right hand corner. Momentarily short PCOM to +5V, -24V, +24V, =15V, and -15V. Use an ohmmeter and check for shorts on the Bus lines by checking the following.

From	To	Approx
PCOM	+5	200 to 300 Ohms
PCOM	-24V	4.5M Ohms
PCOM	+24V	4.5M Ohms
PCOM	+15V	6M Ohms
PCOM	-15V	12K to 15K Ohms

- 6.1.3.1 Remove the test card from the drive and remove EEPROM "U12" and install it in the BUT (Board Under Test) into same location "U12". Install BUT into drive and plug in all connectors.

6.2 Testing Procedure

- 6.2.1 Power up unit by pulling the AC300 E-Stop out.
- 6.2.2 The BUT's LEDs should scroll from right to left continuously.
- 6.2.3 If no faults occur run an SCR Test.
 - 6.2.3.1 On keypad push SET, DRV, 77, enter/reset, Diagnostics will be displayed on the hand held programmer.
 - 6.2.3.2 Push Test, and Test will be displayed.
 - 6.2.3.3 Push 12 and enter, contactor will pull in and out.
 - 6.2.3.4 Display will read FL96 PASS or just "Passed" depending on the revision of the BUT.
 - 6.2.3.5 Push Reset on Hand Held monitor & display will read, "OPERATE"
- 6.2.4 On the control panel turn the stop/ run switch to run, ramp motor up to 50% and let it run for ½ hour.
- 6.2.5 Turn speed control back to zero. Turn off stop/run switch. Push E stop in.
- 6.2.6 End of Test.

6.3 ***TEST COMPLETE ***

7. **NOTES**

7.1 None at this time

8. **ATTACHMENTS**

