g GE Energy ***Parts & Repair Operations*** ***Louisville, KY***	**Functional Testing Specification** **LOU-GEF-IC600PMxxx-A** **Series Six Power Supplies**

Test Procedure for a Series Six Power Supply module

DOCUMENT REVISION STATUS: Determined by the last entry in the "REV" and "DATE" column

REV.	DESCRIPTION	SIGNATURE	REV. DATE
A	Initial release	Cristyn Edlin	02/01/08
B			
C			

PREPARED BY	REVIEWED BY	REVIEWED BY	QUALITY APPROVAL
Cristyn Edlin			Charlie Wade
DATE 02/01/08	**DATE**	**DATE**	**DATE** 2/4/2008

1. SCOPE

1.1 This is a functional testing procedure for a Series Six Power Supply Module.

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.

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 the local documented procedures 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		Series Six Supply Test Load
1		Powered Variable Amperage Load
1		Sensor Card Test Box

6. SETUP

6.1 Ensure that the amperage adjustment of the variable amperage load is turned all the way down.
6.2 Connect the Series Six Power Supply test load to the terminal strip of the supply card with the common wire at the first ground terminal screw (3) and the other three connectors at the first 12V, the -12V and the second 12V terminal screws (4, 5 and 6).
Special Note: This Step can be omitted for the PM500 singular 5V supply module.

6.3 Connect the variable amperage load with the negative to terminal strip screw 2 (ground) and the positive to the 5V terminal screw (1).
6.4 Connect the center cable of the Sensor Card Test Box to P1 of the Sensor card.
6.5 Disconnect P2 and P3 of the power supply modules front panel from the sensor card.
6.6 Connect P2 and P3 of the Sensor Card Test Box to the sensor card.

7. TEST PROCESS

7.1 Turn power to the sensor card test box on.
7.2 Turn the key-switches of the sensor card test box to verify that the corresponding LEDs turn on and off.
7.3 Press the “Alarm 1” and “Alarm 2” buttons to verify that the corresponding LEDs toggle from green to red.
7.4 Turn power to the sensor card test box off.
7.5 Turn power to the variable amperage load on.
7.6 Turn power to the supply module (the switch is located on the front panel) on.
7.7 Measure the voltages on the terminal strip of the supply card to verify that the outputs are 5V, 12V, -12 and a second 12V.
7.8 Slowly turn the amperage of the variable amperage load up to 16Amps.
7.9 Measure the voltages on the terminal strip of the supply card to verify that the outputs are 5V, 12V, -12 and a second 12V.
7.10 Let power module run for a minimum of one ½ hour.
7.11 Measure the voltages on the terminal strip of the supply card to verify that the outputs are 5V, 12V, -12 and a second 12V.
7.12 Turn power to the supply module off.
7.13 ***TEST COMPLETE***

8. NOTES

8.1 Step 6.2 can be omitted for the PM500 singular 5V supply module.

9. ATTACHMENTS