



GE Energy

Functional Testing Specification

*Renewal Services
Louisville, KY*

LOU-GED-193X279xxG03

Test Procedure for a 193X279xxG03 card

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PREPARED BY G. Chandler	REVIEWED BY	REVIEWED BY	QUALITY APPROVAL Charlie Wade
DATE 5/29/2009	DATE	DATE	DATE 5/29/2009

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Functional test procedure for a 193X279xxG03 low-level relay card.

1. SCOPE

1.1 This is a functional testing procedure for a 193X279xxG03 low level relay 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 **224X383AA**

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 or cracked

4.2.1.2 Terminal strips / connectors broken or cracked

4.2.1.3 Loose wires

4.2.1.4 Components visually damaged

4.2.1.5 Capacitors leaking

4.2.1.6 Solder joints damaged or cold

4.2.1.7 Circuit board burned or de-laminated

4.2.1.8 Printed wire runs 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 85 DMM (or Equivalent)
1		193X Breakout box

6. TESTING PROCESS

6.1 Testing Procedure

6.1.1 With an ohmmeter check for continuity between the following pins.

Circuit 1		Circuit 2		Circuit 3	
Pins	Reading	Pins	Reading	Pins	Reading
5 to 8	< 1 ohm	13 to 17	< 1 ohm	24 to 27	< 1 ohm
5 to 6	Open	13 to 16	Open	24 to 26	Open
12 to 9	< 1 ohm	20 to 18	< 1 ohm	30 to 28	< 1 ohm
12 to 10	Open	20 to 19	Open	30 to 29	Open

6.1.2 Apply 115VAC between the following pins. See table below

Circuit 1		Circuit 2		Circuit 3	
115VAC	3 & 11	115VAC	21 & 14	115VAC	23 & 25
Pins	Reading	Pins	Reading	Pins	Reading
5 to 8	Open	13 to 17	Open	24 to 27	Open
5 to 6	< 1 ohm	13 to 16	< 1 ohm	24 to 26	< 1 ohm
12 to 9	Open	20 to 18	Open	30 to 28	Open
12 to 10	< 1 ohm	20 to 19	< 1 ohm	30 to 29	< 1 ohm

6.1.3 LED RA should be illuminated for circuit 1, LED RB for circuit 2, & LED RC for circuit 3.

6.1.4 Removed 115VAC from unit

6.2 *TEST COMPLETE*****

7. NOTES

7.1 None at this time.