GE Energy	**Functional Testing Specification**
Parts & Repair Services ***Louisville, KY***	**LOU-GED-IS200EXMD**

Test Procedure for a IS200EXMDG1B Contactor Driver Card.

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

REV.	DESCRIPTION	SIGNATURE	REV. DATE
A	Initial release	M. Starling	6-7-2016
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M. Starling			L. Groves
DATE	**DATE**	**DATE**	**DATE**
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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	DMM	Fluke 87 (or equivalent)
2	Tenma 72-2080	Setup in series – 120 VDC Output

6. Modifications/Upgrades

6.1 Perform Modifications and upgrades as per product ECN's.

7. Testing Process

7.1 Setup

7.1.1 Visually inspect board runs and all components for damage.

7.1.2 Remove K1 relay from socket. Verify that relay and relay socket are in good condition.

7.1.3 The first part of the test will be performing continuity tests. Leave relay off for now.

7.1.4 If any components are notably damaged, replace those components before proceeding.

7.2 Testing Procedure

7.2.1 Test the following points for continuity. All readings should be < 1 Ohm.

FROM	TO
J2-2	J3-4
J2-3	K1-5
J2-4	J3-2
"	J5-12
"	J6-12
J2-5	J3-3
"	J2-9
"	J5-7
"	J6-7
J2-6	J3-1
"	K1-3
J2-7	J3-5
"	J5-11
"	J6-11
J2-8	J3-6
"	J5-8
"	J6-8
J5-6	J6-5
J6-6	K1-8

7.2.2 Verify resistance value of R1 and R2 is 3.3K Ohms +/- 5%.

7.2.3 Inspect K1 relay and replace if necessary. Reinstall K1 relay on socket.

7.2.4 Verify an open between J2-3 and J2-6.

7.2.5 Place a jumper wire between J6-1 and J6-6.

7.3

7.3.1 Connect power supply set up for 120 VDC to J1-1(+) and J1-2(-) .

7.3.2 Turn on power supply. You should hear K1 relay click and the orange neon on K1 will light up.

7.3.3 Verify the connection between J2-3 and J2-6 is now closed, with a resistance value of < 1 Ohm.

7.3.4 Turn off power and remove all connections.

7.4 Post Testing Burn-in **Required** ___ **Yes** _**x**_ **No**

7.5 ***TEST COMPLETE ***

8. Notes

8.1 None at this time?

9. Attachments

9.1 None at this time?