g GE Energy	**Functional Testing Specification**
Inspection & Repair Services ***Louisville, KY***	**LOU-GEF-AC200 Brake**

Test Procedure for AC200 Dynamic Brake

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Functional test procedure for AC200 Dynamic Brake

1. SCOPE

1.1 This is a functional test procedure for testing an AC200 Dynamic Brake.

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.

3.2

GEK-83477	**Instruction Book for AC200 Instruction Manual**
GEK-25393	**Instruction Book for AC200 Application Manual**
44C721905	**Schematic for ACDB1**

4. ENGINEERING REQUIREMENTS

4.1 Description

4.1.1 The AC200 Drive brake relies initially on the stored in the motor rotor. If that is not sufficient to stop the motor and it's connected inertia, it finally relies on the system friction of the motor shaft. From speeds above 600 RPM, the brake circuit relies on a combination of the initial stored electrical energy and friction.

4.2 Equipment Cleaning

4.2.1 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.

4.3 Equipment Inspection

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

- **4.3.1.1** Wires broken or cracked
- **4.3.1.2** Terminal strips / connectors broken or cracked
- **4.3.1.3** Loose wires
- **4.3.1.4** Components visually damaged
- **4.3.1.5** Capacitors leaking
- **4.3.1.6** Solder joints damaged or cold
- **4.3.1.7** Circuit board burned or de-laminated
- **4.3.1.8** 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	AC200 Manual Drive Bench	Test Fixture
1	50 or 75 Amp Servo	AC200 Servo Drive
1	Fluke 85 Multi-Function Meter	Multi-Function Meter

6. Testing

6.1 Static Test

6.1.1 Use Ohm Meter to verify components on ACDB1 Card statically on bench, looking for shorts or opens.

6.2 Functional Tests

6.2.1 Assemble and install UUT into Test Fixture, removing shop unit.

6.2.2 Hookup a 50 or 75 Amp Servo Drive on test fixture.

6.2.3 Power-up test fixture.

6.2.3.1 Enable Servo in either direction and adjust Enable voltage to over 6 VDC, as seen on fixture.

6.2.3.1.1 As motor is spinning, turn Enable switch off. Dynamic Brake should slow motor to approximately 600 RPM very quickly.

6.2.3.1.2 Re-Enable motor and remove the 5-PL connector, Dynamic Brake should slow motor to approximately 600 RPM very quickly.

6.2.3.1.3 Re-connect 5-PL connector. Re-enable motor in other direction.

6.2.3.1.4 Repeat steps 5.3.3.1.1 and 5.3.3.1.2 for other direction.

6.2.4 If all tests passed, power-down test fixture, and re-install shop unit.

6.2.5 ***TEST COMPLETE ***