



GE Energy

Functional Testing Specification

Parts & Repair Services
Louisville, KY

LOU-GEF-259A9452P1

Test Procedure for MC2000 MCS Power Supply

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

REV.	DESCRIPTION	SIGNATURE	REV. DATE
A	Initial release	Rick Diercks	12/31/2008
B			
C			

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DATE 12/31/2008	DATE	DATE	DATE 12/31/2008

Functional test procedure for MC2000 MCS Power Supply

1. **SCOPE**

- 1.1 This specification provides the Engineering Requirements for testing 259A9452P1 MCS Power Supply.

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 **44A72227** System Diagrams

4. **ENGINEERING REQUIREMENTS**

4.1 Description

This unit is a +24V DC Power Supply used in a MC2000 Control. It supplies +24V DC Voltage to the MCS and DC/DC Converter

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.

Quantity	Equipment
1	120V AC Variable Autotransformer
1	DC Power Supply HP 6824A
1	10 OHM 100 Watt Resistor
1	Fluke Multimeter

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6. TESTING PROCESS

6.1 Pre Test Requirement

- 6.1.1 Set jumpers on PCB for 120V AC input.
- 6.1.2 Connect AC Power in from Variable Autotransformer to L-1 and N.
- 6.1.3 Connect DC Power Supply (set at +24VDC) to +24V I+ and I-.
- 6.1.4 Connect Load Resistor to +V and –V.
- 6.1.5 Connect Meter lead across Load.

6.2 Converter Test

- 6.2.1 Turn on 120V AC Variable Autotransformer, increase output to 100% Meter should read @1.8V DC.
- 6.2.2 Turn on Power Supply
- 6.2.3 Meter should be 24-25 Volts DC.
- 6.2.4 Burn in with full load for @ 2 hours Monitoring Output Voltage (voltages should stay with in range).
- 6.2.5 Turn off DC Power Supply and 120V AC Variable Autotransformer; remove Power Supply from Load, 120V AC Variable Autotransformer and DC Power Supply.

6.3 *****TEST COMPLETE *****