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**OPERATION
&
SERVICE
MANUAL**

M100/M500

HI POT TEST INSTRUMENT

ROD-L ELECTRONICS, INC.
923 Hamilton Avenue
Menlo Park, CA 94025
(415) 332-0711

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full scale values are 50 mA for the 1500 VAC unit, 40 mA for the 2800 VAC unit, and 25 mA for the 5000 VAC unit. For the M500 model the maximum full scale values are 333 mA for the 1500 VAC unit, 200 mA for the 2800 VAC unit, and 100 mA for the 5000 VAC unit.

1-4. Special Versions of Models

Instruments with nonstandard test voltages and ammeters are considered special versions of the basic models. In these applications, the customer specifies the voltage and ammeter full scale values.

1-5. Identification

The ROD-L AC Hipot Tester's high voltage full scale rating and the ammeter full scale rating are written in the model number code on the serial number label on the rear panel. An example of the model number format is as follows:

M100AVS5-X.X-ZZZ

where X.X represents the full scale kilovolts and ZZZ represents full scale mA of current.

The serial number is a manufacturer identification of the instrument.

1-6. Specifications

Table 1-1 lists the most important electrical, environmental, and physical specifications of the Hipot Testers.

1-7. Safety Features

1. Loss of safety ground terminates the test cycle. 2. No external leads.
3. Recessed START button.
4. Visual and audible alarm at failure. After a fail indication, the unit is completely RESET if no restart is attempted.
5. High voltage lockout requiring manual RESET.

1-8. Typographical Conventions

ALL CAPS are used to denote names used in the schematics or silk-screened on the M488.

"*" is used to denote a voltage active low electrical signal.

"NOTE:" indicates information that you should read before proceeding.

 * Table 1-1: Specifications *
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* Test Voltage and Current	User specified up to 5000 VAC, 50/60 Hz, 333 mA
* NOTE: Voltage and current range combinations are detailed in Section 1-3	
* High Voltage Shutdown	Within 2 milliseconds after a fault is detected (electronic shutdown circuit)
* Automatic Test Cycle	1 to 90 seconds
* Initial Turn-On Period	Requires 0.5 seconds for safety ground check before start
* Safety Ground Continuity	Reject level: 0.5 ohm \pm 0.1 ohm; operates whenever ground is connected (Low current, 1.0 amp applied)
* OUTPUT VOLTAGE Meter Reading	Accurate to \pm 3% Full Scale
* Voltage Monitoring Circuitry	\pm 1.0% through full range
* OUTPUT CURRENT Meter Reading	Accurate to \pm 3% F.S.
* Current Monitoring Circuitry	\pm 1.0% through full range
* Voltmeter Resolution	Better than 3% F.S
* Voltage Circuitry Resolution	Better than 1.0% F.S
* Ammeter Resolution	Better than 3% F.S
* Current Circuitry Resolution	Better than 1.0% F.S
* Input Power	115 or 230 VAC \pm 10%, 44 to 66 Hz at 500 W max. (30 W typical); line input voltage set by 115/230VAC switch on rear panel
* Environmental Operating Conditions	0° to 50°C (32° to 122°F)
* Physical Color	Mint-gray/Olive-gray
* Weight	35 lbs. (15.9 kg) Net 38 lbs. (17.2 kg) Shipped
* Dimensions	16 3/4" x 5 1/4" x 13 1/4" (43 x 13 x 34 cm)