



The E3640 digital flash tester is a portable mains operated instrument, capable of operating from either 115V or 230V at 50/60Hz. It applies up to 4kV AC and displays output voltage and leakage current on the twin 3½ digit LCD's.

The unit has three modes:

**Breakdown** - fast transients can trigger the trip;

**Burn** - where the trip function is bypassed and the fault current flows continuously to expose the fault;

**Hold** - shows breakdown voltage and leakage current.

## SPECIFICATIONS

### ELECTRICAL

**Power Requirement:** 115/230 Volts  $\pm 15\%$  50/60Hz 40VA

**Fuses:** 230V - 5x20mm 0.25A, HBC, Type F

115V - 5x20mm 0.5A, HBC, Type F

**Output Voltage Range:** 0 - 2.2, 0 - 4.2kV 50/60Hz

**Output Voltage Accuracy:**  $\pm 2\%$  of reading  $\pm 1$  digit

**Leakage Current:** 0 - 5 mA (nominal) 50/60Hz in 10 $\mu$ A steps

**Leakage Current Accuracy:**  $\pm 2\%$  of reading  $\pm 1$  digit

**Trip Level Range:** 0 to 3mA 50/60Hz

**Setting Accuracy:**  $\pm 5\%$  of full range

**Trip Response Leakage:** Will trip for fault duration  $>5\text{mS}$  but not for  $<100\mu\text{S}$

**Breakdown:** Will trip for fast transients of 30 $\mu\text{S}$  and above

### MECHANICAL

**Weight:** 4kg **Dimensions:** 330 x 263 x 144mm

**Bump Test IEC 68-2-29**

**Vibration, Impact and Drop:** BS EN61010 8.3, 8.2, 8.4

### ENVIRONMENTAL

**Operating Temperature:**  $-15^{\circ}\text{C}$  to  $+55^{\circ}\text{C}$

**Storage Temperature:**  $-25^{\circ}\text{C}$  to  $+65^{\circ}\text{C}$

**Operating Humidity:** 80% RH at  $40^{\circ}\text{C}$

**Installation Category II:** BS EN 61010 - Annex J

**Pollution Degree 2:** BS EN 61010 - clause 3.7.3.2

### INDICATORS

**kV ON:** Red lamp shows the high voltage circuit is energised

**FAIL:** A red lamp which indicates the trip has triggered

**Audible Fail:** A buzzer indicates the trip has triggered

### CONTROLS

**Power Switch type:** Double pole ON/OFF rocker type

**Mode Select:** Three position rotary switch selects the breakdown, trip or burn mode of operation

**Trip Level:** Single turn trip level setting potentiometer

**Voltage Select:** Two position rotary switch for 2 or 4kV range.

**Voltage Control:** Single-turn potentiometer for accurate setting of the output voltage

### CONNECTORS

**Power Inlet:** A module which combines a filter with an IEC 320 inlet with an ON/OFF double pole rocker.

**Low/Earth Terminal:** Large yellow/green binding post

**High Voltage Outlet:** Red custom designed deep socket

### LEADS/PROBES

**Earth Lead:** A green heavy duty flexible lead with a 4mm plug and a fixed shrouded crocodile clip at the other.

**High Voltage probes:** A custom moulded pistol shaped probe with a trigger operated retractable "hot" end. A red high voltage lead emerges from the bottom of the hand grip and is terminated with especially designed high voltage safety connector.

**EMC:** To BS EN 50081-1 and BS EN 50082-2

**Safety and Flash Test:** To BS EN 61010-1

Metrohm Products are manufactured by Martindale Electric.

Due to policy of continuous development, Martindale Electric reserves the right to alter equipment specification and description outlined in this document without prior notice. No part of this document shall be deemed to be part of any contract for the equipment unless specifically referred to as an inclusion within such contract. © Martindale Electric Co. Ltd. 2005