

# ELITE

## A Comprehensive Electrical Safety Analyser Offering Fully Selectable Tests for Complete Flexibility.

■ Multi Industry Use

The Elite test system features powerful tests in one instrument. These tests are: AC/DC flash/hipot, DC insulation resistance, Earth/Ground bond and leakage.

This system is designed for automatic dual voltage operation and is capable of testing product safety in accordance with most international safety standards and approvals agency recommendations. These include IEC, UL, CSA, VDE, EN, BEAB, BSI and BABT.

The Elite has a simple, user-friendly interface which uses a single button operation. It has an option which allows engineers and supervisors to create their own pre-programmed test sequence for each product. Powerful Windows software is bundled with this product to give the tester network connection.

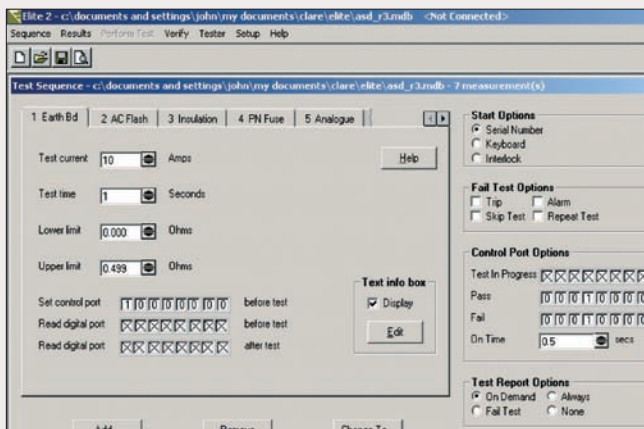
The 9024 and the 9024V variants of the Elite incorporate a test capability with a function output test voltage that can be varied from 10 to 280V.

The 9024 variant can also raise the function test output higher than the supply (up to 280V). This makes it ideal for product lab audit and conformance type testing. The Elite not only carries out electrical safety tests but can also act as the core within an automated test system.

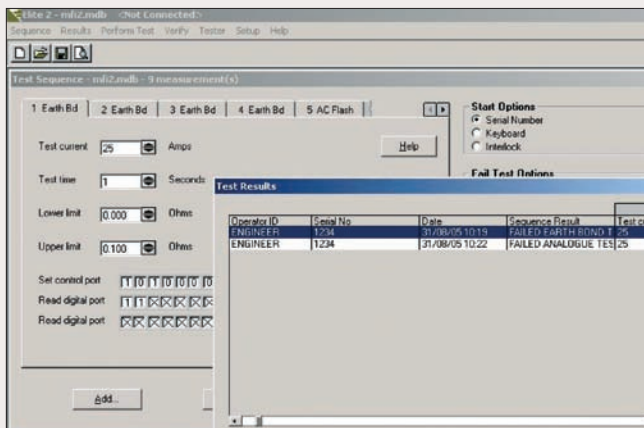


KEY FEATURES	Elite
Meets most international standards including; EN 50178, EN 60335, UL 1026, EN 60950, UL 1270 and EN 61010	■
All-in-one Electrical Safety Tester including Load test capability	■
Powerful PC software for complete automatic control	■
Statistical analysis (SPC) and result traceability	■
Simple straightforward user interface with single button operation	■
Powerful I/O allowing control of external devices	■
Able to act as PLC controller	■
Ability to be network connected	■
Test results can be loaded directly into MS Access/Excel	■
Can be remote controlled via RS232	■
Industrial 19-inch rack mounting option	■

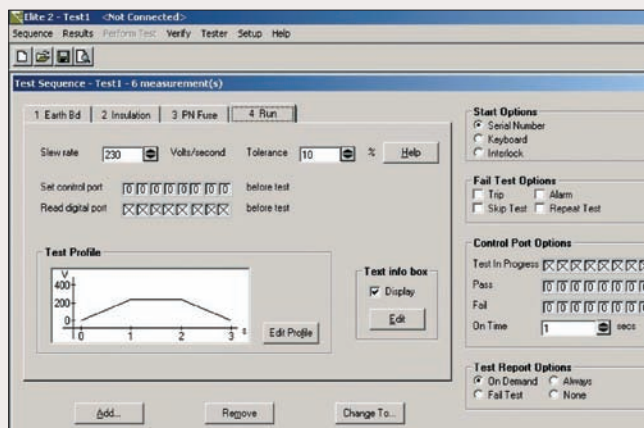




▲ Earth Ground Bond Test



▲ Test Results Window: Failed



▲ Power / Run / Load Test

## SPECIFICATIONS

### AC Flash/Hipot Test

Test Voltage	100V to 5kV AC in steps of 25V
Test Voltage Accuracy	±2% ±20V
Test Current	20mA AC maximum
Measurement Range	0 to 19.99mA with a resolution of 0.01mA
Measurement Accuracy	±2% of reading ±2 digits ±20mA/kV
Ramp Time	0.5 to 25 seconds in steps of 0.1 second
Dwell Time	0 to 255 seconds in steps of 1 second
Failure Modes	Breakdown (dv/dt > 10V/ms)
Software trip	(user selectable 0 - 19.99mA)
Hardware trip	(22mA nominal)
Discharge Time	1 second maximum
Shut Down Time	<20ms maximum

### DC Flash/Hipot Test

Test Voltage	200V to 6kV DC in steps of 25V
Test Voltage Accuracy	±2% ±20V
Test Current	10mA DC maximum
Capacitance Drive	1mF
Measurement Range	0 to 9.99mA with a resolution of 0.01mA
Measurement Accuracy	±2% of reading ±2 digits
Ramp Time	0.1 to 25 seconds in steps of 0.1 second
Dwell Time	0 to 255 seconds in steps of 1 second
Failure Modes	Breakdown (dv/dt > 10V/ms)
Software trip	(user Selectable 0 - 9.99mA)
Hardware trip	(11mA nominal)
Discharge Time	2 seconds maximum
Shut Down Time	<20ms maximum

### DC Insulation Test

Test Voltage	200 to 1050V DC in steps of 5V
Test Voltage Accuracy	±2%
Break Point Current	1mA DC minimum
Short Circuit Current	1.5 mA DC nominal
Capacitance Drive	1mF at 10M Ω
Measurement Range	0 to 20M Ω in steps of 10k Ω 19M Ω to 199.99M Ω in steps of 0.1M Ω
Measurement Accuracy	±2% of reading ±2 digits
Test Time	0 to 255 seconds in steps of 1 second

# ELITE Continued

## Earth/Ground Bond Test

Test Voltage	12V AC nominal into an open circuit
Test Current	0 to 26A in steps of 1A
Test Current Accuracy	±3%
Measurement Range	0 to 1.999 Ω with a resolution of 0.001 Ω
Measurement Accuracy	±2% of reading ±2 digits ±5m Ω
Test Time	0 to 255 seconds in steps of 1 second
Measurement System	4 wire

## Earth Leakage Test

Test Voltage	100V to 300V in 1V increments
Test Voltage Accuracy	±2%
Test Current	10mA maximum
Measurement Range	0 to 9.99mA with a resolution of 0.01mA
Measurement Accuracy	±2% of reading ±2 digits
Test Time	0 to 255 seconds in steps of 1 second

## Screen (100 mA Earth Continuity)

Test Voltage	250mV DC maximum into an open circuit
Test Current	100mA DC constant current
Test Current Accuracy	±2%
Measurement Range	0 to 1.999 Ω with a resolution of 0.001 Ω
Accuracy	±2% of reading ±2 digits
Test Time	0 to 255 seconds in steps of 1 second
Protection	protection against connection to mains
Measurement System	4 wire

## Power / Run / Load Test

Test Voltage	10V to 280V (9024) in 1V increments
Test Voltage Accuracy	±2% ±2V
Test Current	12.99A AC maximum, peak factor <1.5
Current Measurement Range	0 to 12.99A AC with a resolution of 0.01A
Current Accuracy	±2% of reading ±2 digits ±50mA
Power Measurement Range	0 to 2999W with a resolution of 1W
Power Accuracy	±2% of reading ±2 digits ±5W
Slew Rate	0 to 240 V/second in steps of 1V/second
Test Time	0 to 255 seconds in steps of 1 second
Protection	thermal overload, over current trip

## Phase Neutral Continuity Test

Test Voltage	9 V DC nominal into an open circuit
Test Voltage Accuracy	±2%
Test Current	8mA DC short circuit
Measurement Range	0 to 1999 Ω with a resolution of 1 Ω
Measurement Accuracy	±2% of reading ±2 digits
Test Time	0 to 255 seconds in steps of 1 second
Protection	protection against connection to mains

## Analogue Test

Voltage Input Range	0 to 12V
Measurement Range	0 to 11.99V with a resolution of 0.01V
Measurement Accuracy	±2% of reading ±2 digits
Test Time	1 to 255 seconds in steps of 1 second

## ADDITIONAL INFORMATION

### Mechanical

Case Dimensions 520W x 210H x 400D mm approx  
Weight 45kg approx

### Electrical

Supply Voltage 230V  $\pm$ 15% at 50 - 60Hz  
Power Consumption 50VA maximum (standby) 4.25kVA maximum during functional test  
Operation Temperature 0-40°C  
EN50191 Compliant when used with appropriate accessories

### Supplied With

Elite Software  
Earth bond Clip  
Output Box  
Guard Switch  
Data Cable  
Keyboard  
Mains Lead  
Instruction Manual.

## OPTIONAL EXTRAS

### Hardware

E9-5009	Barcode Scanner
E9-5001	Data Cable
E9-5006	Foot Guard Switch
E9-5007	Earth Probe
E9-5008	Status Beacon
E9-5010	Printer Cable
03918/2	HT – Probe
312A950	Desk Test n Tag Printer
312A954	Desk Test n Tag Printer Labels
312A952	Desk Test n Tag Printer Ribbon

### Service

Onsite or return to base  
Service  
Calibration

### Order Numbers

E9024 – including Voltage swing up to 280V for type testing  
E9024V

## DISTRIBUTOR



**MCS Test Equipment Ltd**  
Unit 5-6 Station Yard,  
Llanrwst, Conwy,  
North Wales,  
LL26 0EH

Tel: 08453 62 63 65  
Fax: 08453 62 36 16

Email: [sales@mcs-testequipment.co.uk](mailto:sales@mcs-testequipment.co.uk)  
Web: [www.mcs-testequipment.co.uk](http://www.mcs-testequipment.co.uk)