MARTINDALE ELECTRIC

Specification
ET5
Electrical Tester



ELECTRICAL

All specified accuracies are at 23°C ± 5°C, <75% RH for 1 year.
Temperature Coefficient: < 0.1 x (specified accuracy) per °C. (0°C to 18°C, 28°C to 40°C)

DC Voltage

Range	Resolution	Input Impedance	Accuracy
500mV	0.1mV	1.1MΩ	± (0.5% of rdg + 2 dgts)
5V	0.001V	1MΩ	
50V	0.01V		
500V	0.1V		
600V	1V		

Overload Protection: 600V DC or AC rms

AC Voltage

Range	Resolution	Input Impedance	Accuracy
500mV	0.1mV	1 MΩ	Not specified
5V	0.001V		50-60Hz ± (1.2% of rdg + 5 dgts) 60-500Hz ± (2.0% of rdg + 5 dgts)
50V	0.01V		
500V	0.1V		
600V	1V		

Overload Protection: 600V DC or AC rms

DC Current (A ⎓ function)

Range	Resolution	Accuracy
200A	0.1A	± (2.0% of rdg + 5 dgts)

Maximum input current: 200A

DC Current (µA ⎓ function)

Range	Resolution	Voltage burden	Accuracy
500µA	0.1µA	1V	± (1.0% of rdg + 2 dgts)

Maximum input current: 500µA

AC Current

Range	Resolution	Accuracy (50 Hz to 60 Hz)
200A	0.1A	± (2.0% of rdg + 10 dgts)

Maximum input current: 200A

Resistance

Range	Resolution	Open circuit voltage	Accuracy
500Ω	0.1Ω	-3.2V DC	± (1.0% of rdg + 5 dgts)
5kΩ	0.001kΩ	-1.1V DC approx	
50kΩ	0.01kΩ		
500kΩ	0.1kΩ		
5MΩ	0.001MΩ		± (1.5% of rdg + 5 dgts)
50MΩ	0.1MΩ		± (3.0% of rdg + 5 dgts)

Overload Protection: 600V DC or AC rms

Capacitance

Range	Resolution	Accuracy
5µF	0.001µF	± (3.0% of rdg + 15 dgts)
50µF	0.01µF	± (3.0% of rdg + 5 dgts)
500µF	0.1µF	
5mF	0.001mF	± (5.0% of rdg + 20 dgts)

Overload Protection: 600V DC or AC rms.

Temperature

Range	Resolution	Accuracy
-35°C to 0°C	0.1°C	± (2.0% of rdg + 3°C)
0°C to 300°C		± (1.0% of rdg + 1°C)
300°C to 500°C		± (2.0% of rdg + 3°C)
-30°F to 32°F	0.1°F	± (2.0% of rdg + 6°F)
32°F to 572°F		± (1.0% of rdg + 2°F)
572°F to 932°F		± (2.0% of rdg + 6°F)

Overload Protection: 30V DC or AC rms.

Frequency

Frequency measurement using AC current range

Range	Resolution	Accuracy
30Hz to 400Hz	0.1Hz	± (0.1% of rdg + 5 dgts)

Input sensitivity > 10A AC rms.
Maximum input current: 200A AC rms

Frequency measurement using Hz/% ranges.

Range	Resolution	Accuracy
500Hz	0.1Hz	± (0.1% of rdg + 5 dgts)
5kHz	0.001kHz	
50kHz	0.01kHz	
500kHz	0.1kHz	
1MHz	0.001MHz	

Sensitivity (10Hz to 1MHz): >3.5V AC rms.

Minimum pulse width: >1µs.
Duty cycle limits: >30% and <70%.
Overload protection: 600V DC or AC rms.

Duty Cycle

Range	Frequency Range	Resolution	Pulse Width	Accuracy (5V Logic)
5% to 95%	40Hz to 20kHz	0.1%	>10 us	±(2.0% rdg + 10 dgts)

Overload protection: 600VDC or AC rms.

Continuity

Range	Resolution	Response time	Accuracy
500Ω	0.1Ω	100ms	<30Ω

Overload protection: 600V DC or AC rms

Diode Test

Range	Resolution	Test current	Open circuit voltage	Accuracy
2V	1mV	0.8mA approx.	3.2V DC approx.	± (1.5% rdg + 5 dgts)

Overload protection: 600V DC or AC rms

Non-Contact Voltage Indicator

Range: 70V to 600V (50Hz to 60Hz)

GENERAL

Display: Liquid crystal display with a maximum reading of 5000 digits, dual display
Polarity: Automatic, positive implied, '-' for negative polarity indication.
Overrange: (OL) or (-OL) is displayed
Zero: Automatic
Low battery indication: The battery capacity is shown by the symbols on the LCD. If the symbol is flashing followed by a LO.Bt display, the battery needs replacing as measurement accuracy can no longer be guaranteed
Measurement rate: 3.3 times per second, nominal

Auto power off: After approx. 30 minutes

Power: 9V, PP3 alkaline battery (IEC 6LR61, NEDA 1604A).
Battery life: 50 hours typical with carbon zinc
100 hours typical with alkaline

Fork maximum conductor size: 15mm diameter
Dimensions: 202.5mm (L) x 51mm (W) x 44mm (D)
Weight: Approx. 200g including battery

Includes: TL17 test leads, 9V battery, K type thermocouple and instructions

ENVIRONMENTAL
Operating environment: 0°C to 40°C, <70% RH
Storage temperature: -20°C to 60°C, 0 to 80% RH
Altitude: Up to 2000m.

SAFETY
Conforms to BS EN 61010-1, BS EN 61010-2-032, CAT III 600V
Class II, Double Insulation
Pollution Degree: 2, indoor use

EMC
Conforms to BS EN 61326-1.

TL17 TEST LEADS SPECIFICATION
Maximum voltage: 1000V AC/DC
Maximum current: 10A continuous
Connectors: 4mm banana plugs

Conforms to BS EN 61010-031
Insulated end cap fitted: CAT IV 600V, CAT III 1000V, 10A
Insulated end cap removed: CAT II 1000V, 10A.
Class II, Double Insulation
Pollution degree 2

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- Specialist Drummond Testers

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