

# CERTIFICATE OF CALIBRATION

Issued By SPECIALIST INSTRUMENT SERVICES

Date of Issue 17 July 2008

Certificate Number  
STD4725

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Unit A, Frenbury Estate  
Helesdon Park Road  
Norwich  
NR6 5DP

Approved Signatory

M.French

M.Graffin

D.P.Cooper

Customer : Edmundson Electrical (032)  
Units 2 & 3 Macfarlane Court, Morton Peto Road  
Gapton Hall Ind Estate Gt Yarmouth, NR31 0LT

Date Received : 17 June 2008

<b>Instrument -</b>	System ID :	DI2783	Job Number : NJ6986-1
	Description :	Multifunction Tester	
	Manufacturer :	Metrel	
	Model Number :	Eurotest	
	Serial Number :	16070973	
	Procedure Version :	1.10/fast	

## Environmental Conditions

Temperature : 22.3°C +/- 1°C  
Relative Humidity : 45.6% +/- 10%

Mains Voltage : 235V +/- 10V  
Mains Frequency : 50Hz +/- 1Hz

## Comments

Unit placed in the lab prior to calibration to stabilise.  
Unit was calibrated with the leads supplied.

## Traceability Information

<i>Instrument description</i>	<i>Serial number</i>	<i>Certificate number</i>	<i>Cal. Date</i>	<i>Cal. Period</i>
2100 Electrical Test Calibrator (HI)	107745A6	12873	08/01/2008	52

Calibrated By : M.French

Date of Calibration : 17 July 2008

This certificate provides traceability of measurement to recognised National Standards, and to the units of measurement realised at the National Physical Laboratory or other recognised National Standards laboratories.  
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This certificate complies with the requirements of BS EN ISO 10012:2003.

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Test Title	Tolerance	Applied Value	Reading	Pass/Fail
250V Voltage	25V	250V	260V	Pass
Insulation 1MΩ	45kΩ	1.00MΩ	1.00MΩ	Pass
Insulation 10MΩ	180kΩ	10.00MΩ	9.95MΩ	Pass
Insulation 100MΩ	1.8MΩ	100.0MΩ	100.3MΩ	Pass
500V Voltage	50V	500V	521V	Pass
1000V Voltage	100V	1 000V	1 037V	Pass
20Ω Cont Range	43mΩ	0.20Ω	0.23Ω	Pass
20Ω Cont Range	45mΩ	1.00Ω	1.03Ω	Pass
20Ω Cont Range	180mΩ	10.00Ω	10.01Ω	Pass
200Ω Cont Range	1.8Ω	100.0Ω	99.7Ω	Pass
2000Ω Cont Range	18Ω	1 000Ω	989Ω	Pass
200mA Cont Current	37.5mA	250mA	225mA	Pass
Measured Mains	2.1V	238.3V	238.5V	Pass
20Ω Range	111.8mΩ	0.39Ω	0.39Ω	Pass
20Ω Range	141.9mΩ	1.40Ω	1.43Ω	Pass
20Ω Range	408.9mΩ	10.30Ω	10.63Ω	Pass
200Ω Range	4Ω	101.6Ω	103.0Ω	Pass
2000Ω Range	39.8Ω	993Ω	997Ω	Pass
PFC	255.5A	730A	538A	Pass
10mA Trip Current	1mA	10.00mA	10.66mA	Pass
30mA Trip Current	3mA	30.00mA	30.55mA	Pass
100mA Trip Current	50mA	100.0mA	102.9mA	Pass
300mA Trip Current	30mA	300.0mA	308.1mA	Pass
500mA Trip Current	50mA	500.0mA	516.1mA	Pass
1000mA Trip Current	200mA	1 000.0mA	1 041.6mA	Pass
30mA Ix5	15mA	150.0mA	154.4mA	Pass
30mS Trip Time	400us	30.0ms	30.0ms	Pass

## Uncertainties

Mains Voltage	± 0.5V
RCD Current	1.2%
Loop Impedance	0.5% + 0.004 Ohms ± 1 digit
Continuity Ohms	0 to 20kOhms: 0.25% ± 10milliohms ± 1 digit.
Insulation Ohms	10kohms to 5Mohms: 0.1%, 5Mohms to 10Gohms: 1% +/- 1 Digit.
Insulation Voltage	1% ± 800mV
RCD Time	0.7ms