


Schedule of Accreditation

issued by

United Kingdom Accreditation Service

2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

 <p>Accredited to ISO/IEC 17025:2005</p>	<h3>Alpha Calibration Services Limited</h3> <p>Issue No: 006 Issue date: 13 June 2018</p>	
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<p>Calibration performed at the above address only</p>		

DETAIL OF ACCREDITATION

Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$)	Remarks
ELECTRICAL CALIBRATION			
DC Voltage			
Generation	0 mV to 200 mV 200 mV to 2 V 2 V to 20 V 20 V to 200 V 200 V to 1 kV	55 ppm + 5.0 μ V 55 ppm + 50 μ V 55 ppm + 500 μ V 55 ppm + 5.0 mV 55 ppm + 30 mV	
Measurement	0 mV to 100 mV 100 mV to 1 V 1 V to 10 V 10 V to 100 V 100 V to 1 kV	65 ppm + 5.0 μ V 55 ppm + 10 μ V 50 ppm + 65 μ V 60 ppm + 1.0 mV 60 ppm + 20 mV	
DC Resistance			
Generation	10 Ω 100 Ω 1 k Ω 10 k Ω 100 k Ω 1 M Ω 10 M Ω 100 M Ω	600 ppm + 6.0 m Ω 95 ppm + 6.0 m Ω 60 ppm + 50 m Ω 60 ppm + 0.50 Ω 60 ppm + 5.0 Ω 120 ppm + 55 Ω 650 ppm + 1.0 k Ω 0.60 % + 55 k Ω	
Measurement	0 Ω to 10 Ω 10 Ω to 100 Ω 100 Ω to 1 k Ω 1 k Ω to 10 k Ω 10 k Ω to 100 k Ω 100 k Ω to 1 M Ω 1 M Ω to 10 M Ω 10 M Ω to 100 M Ω	130 ppm + 0.65 m Ω 120 ppm + 5.0 m Ω 120 ppm + 15 m Ω 120 ppm + 120 m Ω 120 ppm + 2.5 Ω 120 ppm + 70 Ω 0.050 % + 2.0 k Ω 1.2 % + 0.12 M Ω	



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ELECTRICAL CALIBRATION (cont'd)			
DC Current			
Generation	0 μ A to 200 μ A 200 μ A to 2 mA 2 mA to 20 mA 20 mA to 200 mA 200 mA to 2A 2 A to 22 A 22 A to 1000 A	120 ppm + 25 nA 100 ppm + 100 nA 100 ppm + 1.2 μ A 120 ppm + 10 μ A 490 ppm + 200 μ A 420 ppm + 2.0 mA 0.90 % + 0.55 A	Appropriate for the calibration of clampmeters
Measurement	0 mA to 10 mA 10 mA to 100 mA 100 mA to 1 A 1 A to 3 A 3 A to 22 A	0.060 % + 3 μ A 0.060 % + 12 μ A 0.15 % + 0.15 mA 0.15 % + 0.75 mA 0.050 %	
AC Voltage			
Generation	10 Hz to 40 Hz 10 mV to 200 mV 200 mV to 2 V 2 V to 20 V 40 Hz to 2 kHz 10 mV to 200 mV 200 mV to 2 V 2 V to 20 V 20 V to 200 V 200 V to 1 kV 2 kHz to 20 kHz 10 mV to 200 mV 200 mV to 2 V 2 V to 20 V 20 V to 200 V 20 kHz to 100 kHz 200 mV to 2 V 2 V to 20 V 2 kHz to 10 kHz 200 V to 1 kV	0.065 % + 55 μ V 0.06 % + 350 μ V 0.06 % + 3.5 mV 0.040 % + 35 μ V 0.040 % + 350 μ V 0.035 % + 3.0 mV 0.04 % + 40 mV 0.04 % + 180 mV 0.10 % + 230 μ V 0.060 % + 1.1 mV 0.07 % + 9.0 mV 0.085 % + 50 mV 0.20 % + 3.6 mV 0.35 % + 40 mV 0.085 % + 350 mV	



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ELECTRICAL CALIBRATION (cont'd)			
Measurement	<i>10 Hz to 40 Hz</i> 10 mV to 100 mV 100 mV to 1 V 1 V to 10 V <i>40 Hz to 2 kHz</i> 10 mV to 100 mV 100 mV to 1 V 1 V to 10 V 10 V to 100 V 100 V to 1 kV <i>2 kHz to 20 kHz</i> 10 mV to 100 mV 100 mV to 1 V 1 V to 10 V 10 V to 100 V 100 V to 1 kV <i>20 kHz to 50 kHz</i> 100 mV to 1 V 1 V to 10 V <i>50 kHz to 100 kHz</i> 100 mV to 1 V 1 V to 10 V	0.080 % + 70 μ V 0.080 % + 0.70 mV 0.080 % + 10 mV 0.080 % + 50 μ V 0.080 % + 0.40 mV 0.080 % + 4.0 mV 0.080 % + 50 mV 0.090 % + 0.30 V 0.080 % + 50 μ V 0.080 % + 0.45 mV 0.080 % + 5.0 mV 0.080 % + 40 mV 0.090 % + 0.40 V 0.15 % + 0.55 mV 0.15 % + 10 mV 0.70 % + 1.0 mV 0.70 % + 10 mV	
AC Current			
Generation	<i>10 Hz to 45 Hz</i> 20 μ A to 200 μ A 200 μ A to 2 mA 2 mA to 20 mA 20 mA to 202 mA 202 mA to 2 A 2 A to 22 A <i>45 Hz to 2 kHz</i> 20 μ A to 200 μ A 200 μ A to 2 mA 2 mA to 20 mA 20 mA to 202 mA 202 mA to 2 A <i>2 kHz to 10 kHz</i> 20 μ A to 200 μ A 200 μ A to 2 mA 2 mA to 20 mA 20 mA to 202 mA	0.090 % + 0.50 μ A 0.090 % + 0.80 μ A 0.090 % + 6.5 μ A 0.090 % + 55 μ A 0.10 % + 0.70 mA 0.20 % + 11 mA 0.060 % + 0.40 μ A 0.060 % + 1.1 μ A 0.060 % + 6.5 μ A 0.065 % + 65 μ A 0.15 % + 0.60 mA 0.16 % + 0.70 μ A 0.13 % + 1.5 μ A 0.13 % + 25 μ A 0.13 % + 0.2 mA	



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ELECTRICAL CALIBRATION (cont'd)			
AC Current (cont'd)			
Generation (cont'd)	45 Hz to 200 Hz 2 A to 22 A	0.15 % + 16 mA	
	200 Hz to 1 kHz 2 A to 22 A	0.20 % + 15 mA	
Measurement	10 Hz to 2 kHz 10 μ A to 1 A	0.15 % + 0.70 mA	
	10 Hz to 1 kHz 1 A to 3 A	0.20 % + 2.5 mA	
Frequency	0 Hz to 100 Hz 100 Hz to 1 kHz 1 kHz to 100 kHz 100 kHz to 1 MHz 1 MHz to 10 MHz	1.5 ppm + 75 μ Hz 1.5 ppm + 2.0 mHz 1.5 ppm + 20 mHz 1.5 ppm + 0.2 Hz 1.5 ppm + 15 Hz	
Capacitance			
Generation	1 kHz 10 nF to 100 nF 100 nF to 1 μ F	0.65 % + 45 pF 0.90 % + 170 pF	
ELECTRICAL SIMULATION OF TEMPERATURE			
Calibration of thermocouple indicators		Including cold junction compensation	
Thermocouple type			
Type K	-100 °C to +120 °C 120 °C to 1000 °C 1000 °C to 1370 °C	0.22 °C 0.30 °C 0.36 °C	
Type T	-100 °C to +120 °C 120 °C to 400 °C	0.17 °C 0.18 °C	
Type J	-100 °C to +120 °C 120 °C to 600 °C 600 °C to 1200 °C	0.21 °C 0.25 °C 0.33 °C	
END			