



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

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CALIBRATION

Valid To: January 31, 2025

Certificate Number: 6056.02

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following calibrations<sup>1,4</sup>:

I. Electrical – DC / Low Frequency

Parameter/Range	Frequency	CMC <sup>2,5</sup> (±)	Comment
AC Power Frequency Voltage – Measure <sup>3</sup>  (45 to 65) Hz	(1 to 140) kV	8.9 V/kV	IEC 60060-2

Parameter/Equipment	Range	CMC <sup>2,5</sup> (±)	Comment
Lightning Impulse Voltage – Generate	Positive Polarity: Up to 300 kV	5.5 kV	IEC 60052
	Negative Polarity: Up to 300 kV	5.3 kV	Sphere gap method
Partial Discharge – Generate	(1 to 20) pC	1.2 pC	IEC 60270
	(20 to 100) pC	0.082 pC/pC	

Parameter/Equipment	Range	CMC <sup>2, 5</sup> (±)	Comment
DC Voltage – Generate	(0 to 200) mV (0.2 to 2) V (2 to 20) V (20 to 200) V (200 to 1000) V	19 µV 0.19 mV 0.46 mV 4.6 mV 31 mV	Transmille multi-product calibrator 3050A
DC Current – Generate	<u>Low Current</u> (0 to 200) µA (0.2 to 2) mA (2 to 20) mA (20 to 200) mA  <u>Medium Current</u> (0.2 to 2) A (2 to 10) A	0.016 % + 0.032 µA 0.013 % + 0.96 µA 0.013 % + 1.6 µA 0.015 % + 17 µA  0.066 % + 0.17 mA 0.063 % + 1.4 mA	Transmille Multi-Product calibrator 3050A

Parameter/Range	Frequency	CMC <sup>2, 5</sup> (±)	Comment
AC Voltage – Generate  (0 to 200) mV (0.2 to 2) V (2 to 20) V (20 to 200) V (200 to 1000) V	(45 to 65) Hz	0.044 % + 45 µV 0.044 % + 410 µV 0.044 % + 4 mV 0.058 % + 36 mV 0.057 % + 0.21 V	Transmille multi-product calibrator 3050A
AC Current – Generate  Low Current: (0 to 200) µA (0.2 to 2) mA (2 to 20) mA (20 to 200) mA  Medium Current: (0.2 to 2) A (2 to 10) A	(45 to 65) Hz	0.087 % + 0.45 µA 0.087 % + 1.3 µA 0.087 % + 5.6 µA 0.089 % + 58 µA  0.11 % + 0.67 mA 0.2 % + 9.4 mA	Transmille multi-product calibrator 3050A

Parameter/Range	Frequency	CMC <sup>4, 5</sup> ( $\pm$ )	Comment
AC Current – Measure & Generate  High Current: (1 to 10) A (10 to 100) A (100 to 200) A	(45 to 65) Hz	1.4 % + 0.11 A 1.4 % + 0.49 A 2.9 % + 4.9 A	AEMC power quality analyzer 8335

Parameter/Equipment	Range	CMC <sup>2, 5</sup> ( $\pm$ )	Comment
Resistance – Generate Fixed Points	50 $\mu\Omega$ 100 $\mu\Omega$ 200 $\mu\Omega$ 500 $\mu\Omega$	1.3 $\mu\Omega$ 1.8 $\mu\Omega$ 3.1 $\mu\Omega$ 6.3 $\mu\Omega$	Time electronics resistors DuctorCal 5070
Variables	(0 to 10) $\Omega$ (10 to 100) $\Omega$ (0.1 to 1) k $\Omega$ (1 to 10) k $\Omega$ (10 to 100) k $\Omega$ (0.1 to 1) M $\Omega$ (1 to 10) M $\Omega$	0.079 % + 0.041 $\Omega$ 0.012 % + 0.041 $\Omega$ 0.0079 % + 0.1 $\Omega$ 0.0079 % + 0.85 $\Omega$ 0.0079 % + 8.5 $\Omega$ 0.019 % + 0.14 k $\Omega$ 0.081 % + 1.9 k $\Omega$	Transmille multi-product calibrator 3050A

## II. Thermodynamics

Parameter/Equipment	Range	CMC <sup>2</sup> ( $\pm$ )	Comment
Environment Chamber <sup>3</sup>	(–65 to 110) °C (10 to 95) % RH	1.1 °C 1 % RH	IEC 60068-3-5 IEC 60068-3-6

### III. Time & Frequency

Parameter/Equipment	Range	CMC <sup>2, 6</sup> ( $\pm$ )	Comment
Frequency – Generate	(45 to 65) Hz	0.82 mHz	Transmille multi-product calibrator 3050A

<sup>1</sup> This laboratory offers commercial calibration service.

<sup>2</sup> Calibration and Measurement Capability Uncertainty (CMC) is the smallest uncertainty of measurement that a laboratory can achieve within its scope of accreditation when performing more or less routine calibrations of nearly ideal measurement standards or nearly ideal measuring equipment. CMCs represent expanded uncertainties expressed at approximately the 95 % level of confidence, usually using a coverage factor of  $k = 2$ . The actual measurement uncertainty of a specific calibration performed by the laboratory may be greater than the CMC due to the behavior of the customer's device and to influences from the circumstances of the specific calibration.

<sup>3</sup> This laboratory offers commercial calibration service and field calibration service.

<sup>4</sup> This scope meets A2LA's *P112 Flexible Scope Policy*.

<sup>5</sup> The stated measured values are determined using the indicated instrument (see Comments). This capability is suitable for the calibration of the devices intended to measure or generate the measured value in the ranges indicated. CMC's are expressed as either a specific value that covers the full range or as a percent or fraction of the reading plus a fixed floor specification.

<sup>6</sup> The type of instrument or material being calibrated is defined by the parameter. This indicates the laboratory is capable of calibrating instruments that measure or generate the values in the ranges indicated for the listed measurement parameter.



# Accredited Laboratory

A2LA has accredited

**NOJA POWER SWITCHGEAR PTY LTD**

*Brisbane, AUSTRALIA*

for technical competence in the field of

**Calibration**

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *General requirements for the competence of testing and calibration laboratories*. This laboratory also meets R205 – Specific Requirements: Calibration Laboratory Accreditation Program. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).



Presented this 29<sup>th</sup> day of June 2023.

A blue ink signature of Mr. Trace McInturff.

Mr. Trace McInturff, Vice President, Accreditation Services  
For the Accreditation Council  
Certificate Number 6056.02  
Valid to January 31, 2025

*For the calibrations to which this accreditation applies, please refer to the laboratory's Calibration Scope of Accreditation.*