



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

U.S. ARMY – DEVCOM – GROUND VEHICLE SYSTEMS CENTER
GROUND VEHICLE POWER & MOBILITY LABORATORIES

6501 E. 11 Mile Road

Building 212B

Warren, MI 48397

Mike Trombley Phone: 586-282-8784

ELECTRICAL

Valid To: January 31, 2024

Certificate Number: 4367.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following types of tests on Battery Cells, Modules, Packs, Ultra-Capacitors, Automotive and Heavy-Duty Electrical Components and Systems, High-Power Traction Motors, Inline Generators, Inverters, DC-DC Converters, Alternators, Hybrid Electric Technology Components:

ESL Laboratory

<u>Technology:</u>	<u>Range:</u>	<u>Test Method¹:</u>
Energy Storage Devices Extreme Temperature High Temperature Cycling High Temperature Discharge Cycles Full Charge Capacity Reserve Capacity Low Temperature Capacity Deep Cycle Capacity Retention of Charge Life-Cycle Capacity Deep Discharge Recovery Shelf Life Test Cranking Amps Deep Cycle Life High Temperature Deep Cycle Life Battery Storage Life Charging	DC Current ($\pm 2\,000$) Amps DC	MIL-PRF-32143C Sections: 3.4.1, 3.4.2, 3.6.1.1, 3.6.1.2, 3.6.1.3, 3.6.1.4, 3.6.2, 3.6.4, 3.6.5, 3.6.7, 4.2.6.1, 4.2.6.2, 4.2.6.3, 4.4.1, 4.4.2, 4.6.1.1, 4.6.1.2, 4.6.1.3, 4.6.1.4, 4.6.2, 4.6.4
	DC Voltage (Up to 600) Volts DC	
	Temperature (Environmental) (-65 to 150) °C	
	Temperature (Measure) (-35 to 195) °C	MIL-PRF-32565C Sections: 3.5.4, 3.5.5, 3.5.6, 3.5.7, 3.5.8, 3.5.9, 3.5.11, 4.4.6.1, 4.4.6.2, 4.4.6.3, 4.4.6.4, 4.4.6.5, 4.4.7, 4.4.9, 4.4.9.1, 4.4.9.2
	Impedance (0.001 to 1 000) Ω	
	Battery Weight (Up to 400) lbs	
		LQP-20-WI01 LQP-20-WI02 LQP-20-WI03 LQP-20-WI06 LQP-20-WI07 LQP-20-WI08 LQP-20-WI09 LQP-20-WI13 LQP-20-WI14 LQP-20-WI16 Customer Specific, Military

(A2LA Cert. No. 4367.01) 12/28/2021

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<u>Technology:</u>	<u>Range:</u>	<u>Test Method¹:</u>
Engine, Engine Components Vehicle Support Testing High Voltage Component High Temperature Efficiency Power Quality Transient Voltage Ripple Characterization	DC Voltage Generate (0 to 900) VDC Measure (0 to 1300) VDC	LQP-13-WI13 LQP-20-WI15 LQP-20-WI17
	AC Voltage Generate (0 to 1000) VAC Measure (0 to 1000) VAC	LQP-20-WI18 LQP-20-WI19 LQP-20-WI21 LQP-20-WI23
	DC Current Generate (0 to 1200) ADC Measure (0 to 1500) ADC	MIL-PRF-GSC600A sec.: 3.1.3 MIL-STD-704F sec.: 5.3.2, 5.3.3, 5.4.3 MIL-STD-1275D sec.: 5.1.1 Customer Specific., Military
	AC Current Measure (0 to 1200) AAC	
	Resistance - Generate (0 to 10) K Ω Measure (0 to 1) G Ω	
	Frequency - Generate 1 μ Hz to 50 MHz Measure 0.01 Hz to 2 MHz	
	Power Absorption / Supplies (0 to 250) kW	LQP-13-WI09 Customer Specific., Military
	Impedance 0.001 Ω to 100 K Ω	

¹ This laboratory is also accredited to perform testing using customer specific requirements/methods that are within the ranges listed above.



Accredited Laboratory

A2LA has accredited

U.S. ARMY – DEVCOM – GROUND VEHICLE SYSTEMS CENTER – GROUND VEHICLE POWER & MOBILITY LABORATORIES

Warren, MI

for technical competence in the field of

Electrical Testing

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 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 28th day of December 2021.

A blue ink signature of the Vice President of Accreditation Services.

Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 4367.01
Valid to January 31, 2024

For the types of tests to which this accreditation applies, please refer to the laboratory's Electrical Scope of Accreditation.