



# RIVIAN AUTOMOTIVE, LLC

## Application for Certification - Part 1

2025 Model Year

**EPA Manufacturer Code: RIV**

**Test Group: SRIVT00.01L2**

**Durability Group: N.A.    Evaporative Family: N.A.**

<b>Test Group Description:</b>	Battery Electric Vehicle
<b>Applicable Standards:</b>	U.S. EPA: Tier 3 Bin 0 MDPV CA: ZEV MDV
<b>Carlines Covered:</b>	Rivian R1T Dual Standard (20in) Rivian R1S Dual Standard (20in) Rivian R1T Dual Standard (22in) Rivian R1S Dual Standard (22in)
<b>Document Date:</b>	04/10/2024

**For Questions, Contact:**  
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Mr. Robert Peavyhouse  
Compliance and Innovative Strategies Division  
Office of Mobile Sources  
Environmental Protection Agency  
2000 Traverwood, Ann Arbor, MI 48105

Subject: MY 2025 Rivian Medium-Duty Vehicle Initial Application for issuance of Certificate of Conformity for Test Group SRIVT00.01L2.

Rivian believes that all vehicles within this test group comply with all applicable regulations within Code of Federal Regulations Title 40 Parts 85, 86, 600, and California Code of Regulations Title 13.

Vehicle Category:	Medium Duty Passenger Vehicle (8532 lbs. GVW)
Test Group:	SRIVT00.01L2
Evaporative Family:	N/A
Federal Standard:	Tier 3 Bin 0
California Standard:	ZEV

Test Group Description:

1 - Rivian R1  
L - LFP Battery  
2 - 2 AC motors

Vehicles Covered by this certificate:

Rivian R1T Dual Standard (20in)  
Rivian R1S Dual Standard (20in)  
Rivian R1T Dual Standard (22in)  
Rivian R1S Dual Standard (22in)

Your early review and issuance of the certificate will be greatly appreciated. If you have any questions, please email me at [sepzaker@rivian.com](mailto:sepzaker@rivian.com) or my phone number available on CDX.

Sep Zaker  
Sr. Manager - Homologation and Certification  
(whole vehicle)

  
04/10/2024

Mr. Robert Peavyhouse  
Compliance and Innovative Strategies Division  
Office of Mobile Sources  
Environmental Protection Agency  
2000 Traverwood, Ann Arbor, MI 48105

Subject: MY 2025 Rivian Medium-Duty Vehicle OBD letter for issuance of Certificate of Conformity for Test Group SRIVT00.01L2.

Rivian is a manufacturer of Battery Electric Vehicle, including R1T and R1S. Battery Electric Vehicles are exempt from OBD II requirements.

Vehicle Category:	Medium Duty Passenger Vehicle (8532 lbs. GVW)
Test Group:	SRIVT00.01L2
Evaporative Family:	N/A
Federal Standard:	Tier 3 Bin 0
California Standard:	ZEV

Test Group Description:


1 - Rivian R1  
L - LFP Battery  
2 - 2 AC motors

Vehicles Covered by this certificate:

Rivian R1T Dual Standard (20in)  
Rivian R1S Dual Standard (20in)  
Rivian R1T Dual Standard (22in)  
Rivian R1S Dual Standard (22in)

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Sep Zaker  
Sr. Manager - Homologation and Certification  
(whole vehicle)

  
04/10/2024

Mr. Robert Peavyhouse  
Compliance and Innovative Strategies Division  
Office of Mobile Sources  
Environmental Protection Agency  
2000 Traverwood, Ann Arbor, MI 48105

Subject: MY 2025 Rivian Medium-Duty Vehicle Durability letter for issuance of Certificate of Conformity for Test Group SRIVT00.01L2.

Rivian is a manufacturer of Battery Electric Vehicle, including R1T and R1S. Battery Electric Vehicles (no tailpipe emissions) are exempt from emissions equipment durability requirements.

Vehicle Category:	Medium Duty Passenger Vehicle (8532 lbs. GVW)
Test Group:	SRIVT00.01L2
Evaporative Family:	N/A
Federal Standard:	Tier 3 Bin 0
California Standard:	ZEV

Test Group Description:

1 - Rivian R1  
L - LFP Battery  
2 - 2 AC motors

Vehicles Covered by this certificate:

Rivian R1T Dual Standard (20in)  
Rivian R1S Dual Standard (20in)  
Rivian R1T Dual Standard (22in)  
Rivian R1S Dual Standard (22in)

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Sr. Manager - Homologation and Certification  
(whole vehicle)

  
04/10/2024

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Air Resources Board Laboratory  
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Subject: MY 2025 Rivian Medium-Duty Vehicles Initial Application for issuance of an Executive Order for Test Group SRIVT00.01L2.

Rivian believes that all vehicles within this test group comply with all applicable regulations within Code of Federal Regulations Title 40 Parts 85, 86, 600, and California Code of Regulations Title 13.

Vehicle Category:	Medium Duty Passenger Vehicle (8532 lbs. GVW)
Test Group:	SRIVT00.01L2
Evaporative Family:	N/A
Federal Standard:	Tier 3 Bin 0
California Standard:	ZEV

Test Group Description:


1 - Rivian R1  
L - LFP Battery  
2 - 2 AC motors

Vehicles Covered by this certificate:

Rivian R1T Dual Standard (20in)  
Rivian R1S Dual Standard (20in)  
Rivian R1T Dual Standard (22in)  
Rivian R1S Dual Standard (22in)

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Sep Zaker  
Sr. Manager - Homologation and Certification  
(whole vehicle)

  
04/10/2024

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## **01.00.00 Communications**

### **01.01.00 Mailing Information**

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Attention: Sepehr Zakeresfahani

### **01.01.01 Certification Information**

Rivian Automotive, LLC  
14600 Myford Road  
Irvine, CA 92606

### **01.01.02 Responsible official**

Primary Contact:  
Sepehr Zakeresfahani,

Sr. Manager - Homologation and Certification

(whole vehicle)

[sepzaker@rivian.com](mailto:sepzaker@rivian.com)

## **02.00.00 Confidential Information**

### **02.01.00 Statement of confidentiality**

### **02.02.00 Test vehicle selection**

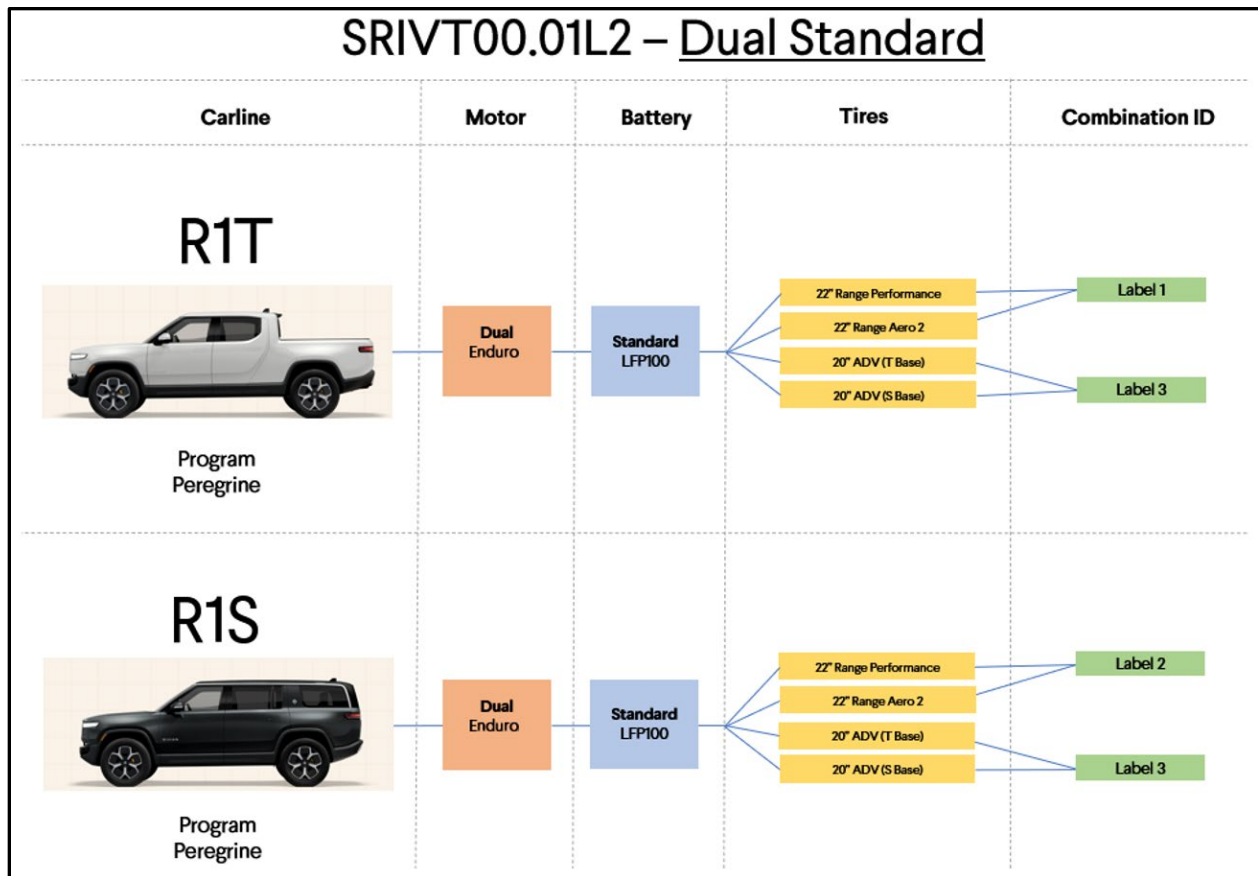
### **02.03.00 Projected annual model-year sales**

## **03.00.00 Facilities, equipment, and test procedures**

### **03.01.00 (Reserved)**

### **03.02.00 Battery pre-conditioning procedures (if necessary)**

### 03.03.00 Configurations and Sub configurations



Program	A [lbf]	B [lbf/mph]	C [lbf/mph <sup>2</sup> ]	Test Weight [lbs]	Tire Size
R1S Dual Standard (20in)	37.15	0.7043	0.01930	7,000	275/60R20
R1S Dual Standard (22in)	38.69	0.4763	0.02168	7,000	275/50R22
R1T Dual Standard (20in)	43.66	0.4840	0.02154	7,000	275/60R20
R1T Dual Standard (22in)	39.82	0.5557	0.01734	7,000	275/50R22

### 03.04.00 Test Procedures

#### 03.04.01 Range Test Procedures

#### 03.04.02 Description of Coastdown

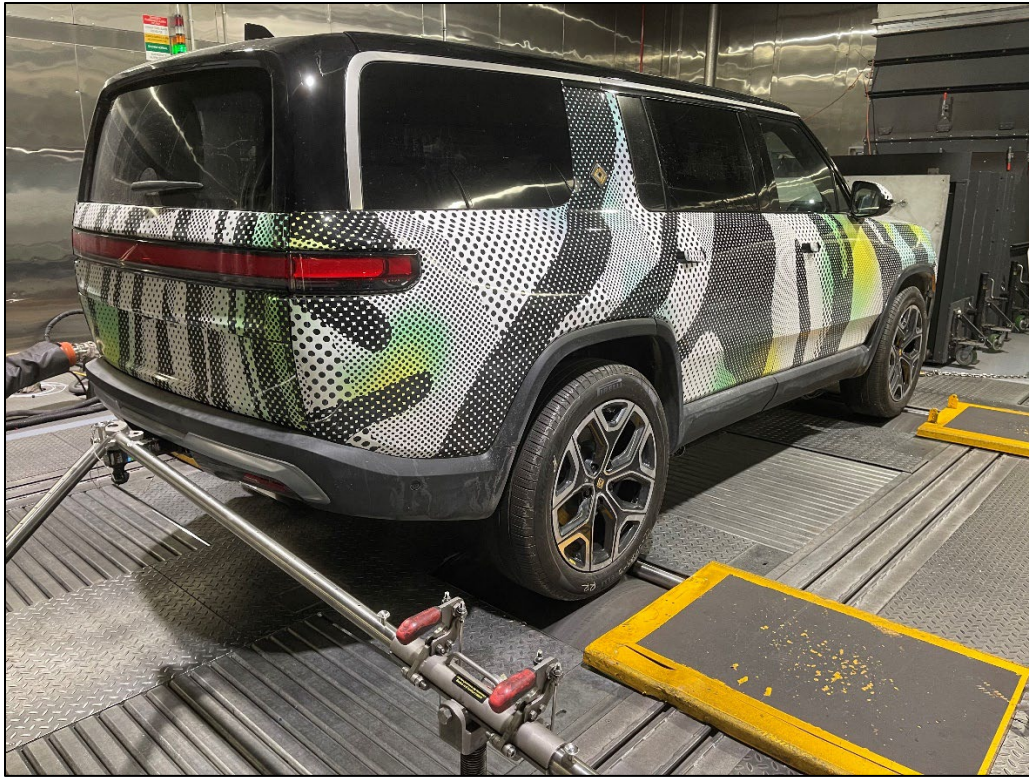
### 03.05.00 Special Test Instructions

#### Vehicle Setup:

Bleyer rigid bar fixation system. Front bar fixed to the front tow hook, and rear bar fixed to the tow hitch receiver.







**Instrumentation:**

Battery voltage and current measurement were taken using a HBM Gen4TB power analyzer and Hioki CT684X-05 current clamps.

- Clamps installed to minimize number of measured current channels.
- Current clamp sizes determined by maximum combined circuit current.



Front/Rear Drive Units – 500A



eAC/eCH & OBC/DCDC/DCAC– 200A



Above: Hioki CT684X-05 current clamp and HBM Gen4TB power analyzer

AC Level 2 240 V/ 48 A (11.5 kW) charger was used for charging.

### 03.05.00 Statement of Compliance

Every vehicle which is covered by this application conforms to US EPA Federal Tier 3 Bin 0 regulations applicable to new Medium-Duty Vehicles and state of California ZEV regulations applicable to new Medium-Duty Vehicles for the 2025 Model Year.

### 04.00.00 (Reserved)

### 05.00.00 (Reserved)

### 06.00.00 Maintenance

#### 06.01.00 Test vehicle scheduled maintenance

#### 06.02.00 Recommended customer maintenance schedule

Rivian Service is our proactive and flexible approach to vehicle care, centered around uptime for our fleet operators. Through remote diagnostics, a large fleet of mobile service vans staffed with Rivian Technicians and a network of service centers deliver rapid care with minimal inconvenience to the fleet operator. Rivian maintenance intervals are determined by onboard prognostics. Vehicle and environment sensors measure or model the remaining life of maintenance items. Operators are informed when maintenance is approaching or due, scheduling necessary maintenance items only. Our fleet of mobile service vans can perform most vehicle care needs at the operator facilities or wherever the vehicle might be. In many instances, the fleet operator won't even have to be present, so can carry on with their day. Mobile service is available anywhere in the US and Canada. As we expand into other markets, our suite of Rivian vehicle care capabilities, including mobile service, will continue to be a key component of our strategy.

Time till repair (year)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Miles to repair equivalent	12.5K	25K	37.5K	50K	62.5K	75K	87.5K	90K	102.5K	115K
<b>R1T Maintenance Schedule</b>										
Multi-point inspection	X	X	X	X	X	X	X	X	X	X
Drive unit & gearbox fluid lubricant									X	

This table is an example and may not represent the final customer experience.

#### 06.03.00 Lubricants and heater fuels if any

Transmission Oil:

BOT 350 M3 transmission fluid for dry electric drive units.

#### Typical Characteristics:

Test	Method	Units	
SAE Grade		-	<b>75W</b>
Density @ 15C, Relative	ASTM D1298	g/ml	<b>0.852</b>
Appearance Visual		-	<b>clear</b>
Viscosity, Kinematic 100°C	ASTM D445	mm <sup>2</sup> /s	<b>6.3</b>
Viscosity, Kinematic 40°C	ASTM D445	mm <sup>2</sup> /s	<b>32</b>
Viscosity Index		-	<b>154</b>
Viscosity, Brookfield @ -40°C	ASTM D2983	mPa.s (cP)	<b>10000</b>
Pour Point	ASTM D97	°C	<b>-51</b>
Flash Point, COC	ASTM D92	°C	<b>226</b>

Coolant: L228

Performance of L288 According to ASTM D3306

Table 1 – ASTM D3306 Results

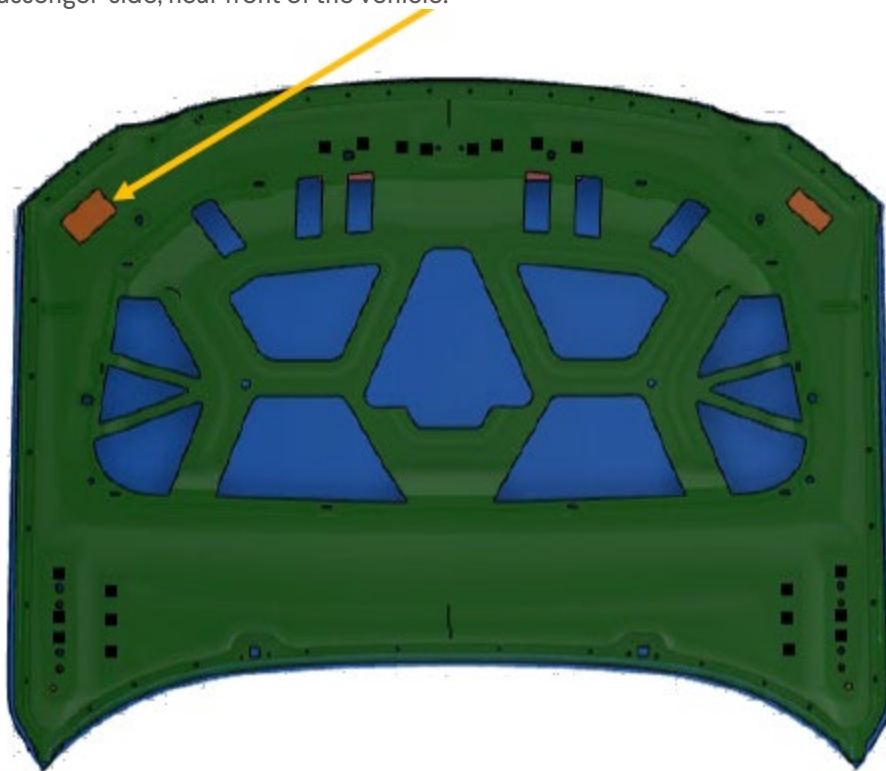
Item		ASTM D3306 Type I	CCI L288	
Color		Distinctive	Yellow	
Relative Density 15.5/15.5°C		1.110 ~ 1.145	1.128	
Freezing Point °C	50 vol% in DI water	-36.4 max.	-37	
Boiling Point °C	50 vol% in DI water	108 min.	109	
Ash content mass%		5 max.	1.7	
pH	50 vol% in DI water	7.5 ~ 11.0	7.6	
Chloride $\mu$ g/g		25 max.	<25	
Water mass%		5 max.	3.8	
Reserve Alkalinity mL		Report	8.0	
Effect on Automotive Finish		No Effect	Pass	
Corrosion in Glassware	Weight Loss <sup>(1)</sup> mg/Specimen	Copper	10 max.	0.2
		Solder	30 max.	4.3
		Brass	10 max.	1.9
		Steel	10 max.	0.7
		Cast Iron	10 max.	1.4
		Aluminum	30 max.	+0.2
Simulated Service Test	Weight Loss <sup>(1)</sup> mg/Specimen	Copper	20 max.	0.7
		Solder	60 max.	6.9
		Brass	20 max.	5.9
		Steel	20 max.	0.2
		Cast Iron	20 max.	3.3
		Aluminum	60 max.	0.1
Corrosion of Cast Aluminum Alloys at Heat-Rejecting Surfaces mg/cm <sup>2</sup> /week		1.0 max.	0.1	
Foaming	Volume mL	150 max.	20	
	Break Time s	5 max.	3	
Cavitation-Erosion Rating for pitting, cavitation, and erosion of the water pump		8 min.	9	

Note (1): A plus sign designates weight gain.

07.00.00 Vehicle Emission Control Information (VECI) and Environmental

07.01.00 VECI Label locations

Under-hood, passenger-side, near front of the vehicle.



07.02.00 Sample VECI labels (MY2025 Sample Label):

 RIVIAN

RIVIAN AUTOMOTIVE, LLC  
VEHICLE EMISSION CONTROL INFORMATION



CONFORMS TO REGULATIONS: 2025 MY      MOTOR: ELECTRIC MOTOR  
TEST GROUP: SRIVT00.01L2      FUEL: ELECTRICITY  
U.S. EPA: T3B0 MDPV      EVAP: N/A  
CALIFORNIA: ZEV MDV      OBD: N/A

THIS VEHICLE CONFORMS TO ALL APPLICABLE STANDARDS  
PRESCRIBED BY THE ON-ROAD VEHICLE AND ENGINE EMISSION  
REGULATIONS / CE VÉHICULE EST CONFORME À TOUTES LES  
NORMES QUI LUI SONT APPLICABLES EN VERTU DU RÈGLEMENT SUR  
LES ÉMISSIONS DES VÉHICULES ROUTIERS ET DE LEURS MOTEURS.



07.03.00 Sample Fuel Economy Label (Formerly called the Smog Index label)

**EPA DOT Fuel Economy and Environment** **Electric Vehicle**

**Fuel Economy** **MPGe** Midsize cars range from 10 to 99 MPGe. The best vehicle rates 99 MPGe. **You save**

**Driving Range** When fully charged, vehicle can travel about... **Charge Time: hours (240V)**

**Annual fuel COST** **Fuel Economy & Greenhouse Gas Rating (tailpipe only)** **Smog Rating (tailpipe only)**

Actual results will vary for many reasons, including driving conditions and how you drive and maintain your vehicle. The average new vehicle gets 22 MPG and costs \$12,600 to fuel over 5 years. Cost estimates are based on 15,000 miles per year at \$0.12 per kW-hr. MPGe is miles per gasoline gallon equivalent. Vehicle emissions are a significant cause of climate change and smog.

**fueleconomy.gov** Calculate personalized estimates and compare vehicles

Smartphone QR Code™

07.04.00 Statement of compliance

Every vehicle which is covered by this application conforms to US EPA Federal Tier 3 Bin 0 regulations applicable to new Medium Duty Passenger Vehicles and state of California ZEV regulations applicable to new Medium-Duty Vehicles for the 2025 Model Year.

08.00.00 General technical description

08.01.00 Description of Propulsion System

See 08.01.01 through 08.01.06

08.01.01 Description of Vehicle Architecture

08.01.02 Description of Drive Unit Architecture

08.01.03 Description of Motor(s)



#### **08.01.04 Description of Gearbox(s)**

#### **08.01.05 Description of Inverter(s)**

#### **08.01.06 Description of Drivetrain(s)**

#### **08.03.00 Description of Batteries**

##### **08.03.01 Battery charging capacity**

Battery pack nominal capacity for Standard Pack is 235 Ah based on a constant current C/5 discharge rate. Standard: 92.5 kWh

##### **08.03.02 Self-discharge information**

Rivian estimates the average self-discharge rate of the battery is less than 4% per month.

##### **08.03.03 Description of thermal management system**

The thermal management system for the high voltage battery is a liquid coolant system. A pump circulates coolant thru the battery and a refrigerant-cooled chiller to extract heat and lower the temperature of the battery. In cold weather, an in-line heating element is used to heat the coolant to raise the temperature of the battery.

##### **08.03.04 Definition of end-of-life**

The battery warranty for in vehicle use is 8 years or 150k miles, whichever occurs first. See section 08.03.05 for information on reuse strategy.

##### **08.03.05 Description of battery disposal plan**

Safe battery removal and discharge by Rivian service is recommended. Rivian service will determine which battery components meet standards for reuse. Rivian prioritizes the remanufacture of battery components into equivalent vehicle parts, then consumption in 2nd life applications. For components which do not meet the necessary standards, Rivian approved partners will transport, break down and recycle all materials used within the battery.

Rivian is pursuing UL 1973 certification of vehicle battery modules to enable their reuse for 2nd life grid storage applications. Rivian also plans to develop a process to evaluate the suitability of modules from field returned packs for reuse for grid storage applications in line with UL 1974 (Standard for Evaluation for Repurposing Batteries).

If a facility other than one approved by Rivian intends to dispose of the HV Battery or components, the vehicle owner and/or facility assume the responsibility to comply with any local or federal standards that may apply. A certificate from the recycler should be obtained as proof the materials were properly and legally disposed of.

#### **08.04.00 Description of Controller/Inverter**

See Section 08.01.05

### 08.05.00 Description of Transmission

See Section 08.01.04

### 08.06.00 Description of climate control system

- Rivian's climate control is a Dual Zone system with Automatic Temperature control.
- HVAC predominantly includes Defrost mode, Panel mode, and Floor mode (or any combination of these three).
- The vehicle could be remotely conditioned to a comfortable climate setpoint using a Mobile Application.
- The system consists of four electronically controlled face vent to direct airflow around passengers.
- The recirculation door is independently controlled by the passengers.
- Auto humidity control.
- Auto/manual blower fan control.

#### 08.06.01 Electric Heat Pump

Rivian has adopted a proprietary heat pump design to enhance the user experience and improve thermal efficiency.

- A number of components, including valves, sensors, heat exchangers, and refrigerant bottle, are integrated into a single bundle for cost, mass, packaging, and assembly benefits.
- Real world range is expected to improve over R1 Launch vehicles (which is equipped with conventional AC system) when cabin reheat or heating is required (roughly below 20°C).
- Further range increase is possible via waste heat recovery from the ESS and powertrain when available.

In addition, R1 heat pump has several other upgrades, including:

- Improved cabin cooling during hot ambient.
- Improved NVH due to relocated compressor.
- Improved cold ambient performance with a HV coolant heater.

#### 08.06.02 (Reserved)

#### 08.06.03 Climate control system logic

HVAC software has multiple modes which can be selected based on user preference:

- In Manual Mode, the user has complete control on blower speed, temperature, and airflow distribution to face or feet. Recirculation of air is also manually controlled by the user.
- In Auto mode, the software provides adequate heating and cooling requests to control the breathing temperature of both driver and passenger to the requested setpoint. In this mode, the airflow distribution and the blower speeds are automatically selected to maintain the desired temperature from the screen. The software estimates the breathing temperature of individual passenger based on airflow through ducts, In-Cabin sensors, external ambient temperature sensors, and solar load sensors. Recirculation of air inside the cabin is automatically selected based on humidity level inside the cabin.
- Additionally, defrost or demist mode is provided to the user for a clear view while driving. During defog mode, the software supplies conditioned air towards the windshield based on the dew point calculation. If the desired mode is Defrost, the heat pump blows hot air towards the windshield to clear frost.

#### 08.06.04 (Reserved)

### 08.07.00 Description of Regenerative Braking System

The regenerative braking system can use electric propulsion motor to convert the vehicles kinetic energy to electrical energy which is stored in the vehicles high voltage battery.

### **08.07.01 Control logic**

The regenerative control logic uses two main inputs, acceleration pedal position and vehicle speed to determine a desired regenerative braking torque. Regenerative torque is limited when the vehicle experiences low wheel traction events e.g. ice or snow.

### **08.07.02 Percentage of braking performed on road by each axle**

The percentage of braking performed on road by each axle is constantly changing and redistributing. It is based on the driver demanded torque and has been optimized for vehicle dynamics and range attributes.

### **08.07.03 Overlap of friction brakes and regenerative braking**

One pedal driving by default, and in this mode, fully releasing the pedal yields the maximum regen allowable in the level selected. As the driver manually increases primary service brake pressure and friction braking torque, the vehicle regen level will proportionally ramp down to 0 Nm. The ramp profile is affected by many factors, such as those described in 08.07.01. When auto hold is active and the vehicle approaches standstill, the braking torque will blend from motors to friction brakes.

### **08.08.00 Description of charger**

The Rivian R1T and R1S are capable of conductive charging using Electric Vehicle Supply Equipment (EVSE) off-board chargers for the following charge methods:

- AC Level 1 Charging at 120 V / 12 A
- AC Level 2 Charging at 240 V / 48 A
- DC Fast Charging at up to 210 kW

For Level 1 and Level 2 charging, the vehicle is equipped with an On-Board Charger that will convert the single-phase alternating current from the EVSE into DC current.

The vehicle is equipped with a SAE J1772 Combo CCS inlet, located at the front left corner of the vehicle, and covered by a charge port door.

### **08.08.01 Proper recharging procedures**

Detailed instructions can be found in the owner's guide.

1. Put the vehicle in park (P) or unlock the vehicle.
2. Open the charge port door, located at the front left corner of the vehicle.
3. Plug the charger connector from the Electric Vehicle Supply Equipment (EVSE) into the vehicle's charge inlet so that the connector is fully seated and latched.
4. Follow any instructions provided by the EVSE to begin the charging session.
5. When the charging session is complete, it is indicated by the vehicle's center touchscreen and by an indicator light at the vehicle's charge inlet.
6. Stop the charge via the vehicle touchscreen or button at the charge port, or follow any instructions provided by the EVSE to end the charging session.
7. Remove the charger connector and close the charge port door.

Charging starts automatically. There may be a short delay if the battery requires heating or cooling.

**NOTE:** When the vehicle is plugged in but not actively charging, it draws energy from the charger instead of using the battery.

### **The charge port light color indicates the charging status:**

White (solid), Ready.  
White (pulsing), Starting to charge.  
Green (pulsing), Charging.  
Green (solid), Charge Complete.  
Blue (solid), Charge Scheduled.  
Red (solid), Error.  
Red (pulsing), Error.

### **To stop the charging session:**

- Select Stop Charge from Energy menu.
- Unplug the charge cable and return the plug to the charger.

### **Signs of discharged 12-volt batteries include the following:**

- Doors and storage areas will not unlock.
- Vehicle does not respond to key fob.
- Lighting will not illuminate.
- Displays will not power up.

### **To jump start the 12-volt batteries:**

- Remove the trailer hitch cover to access the jump start wire harness at the rear of the vehicle.
- Remove the round access panel to the right of the trailer hitch.
- Pull out the jump start wire harness.
- Connect the positive lead (red) to the red lead on the jump start wire harness and negative lead (black) to the black lead on the jump start wire harness.

Once energized, you can unlock the vehicle and power up the vehicle displays. If the vehicle battery has drained to 0%, open the charge port and charge as soon as possible.

### **08.08.02 Power requirements necessary to recharge vehicle**

The Rivian R1T and R1S complies with industry standard SAE J1772 for AC Level 1 (120 VAC) and AC Level 2 (240 VAC) charging. Rivian R1T and R1S will be compatible with NACS through the use of an approved adapter.

AC Level 1 charging requires a conventional 110-120 Volt AC grounded outlet capable of the rating of the EVSE to be used. A portable EVSE cord set that is capable of AC Level 1 charging is included with the vehicle.

AC Level 2 charging requires a 220-240 Volt AC outlet capable of the rating of the EVSE to be used.

### **08.09.00 Accessories which draw energy from the batteries**

Energy from the high voltage battery is used to power the electric heater and electric air conditioning. Energy is drawn by an on-board DC-DC converter that converts the high voltage to 14 Volts DC to maintain the low voltage battery system and power 12 Volt systems. Energy is also drawn by an on-board DC-AC converter to provide AC power to NEMA 15-5 outlets located in the vehicle.

### **08.10.00 Other unique features (e.g. solar panels)**

N/A

### **08.11.00 Description of warning system(s) for maintenance / malfunction**

The Rivian vehicles communicate maintenance and malfunction needs to the driver through easy-to-read and timely notifications. If issues do occur, the notification system uses a combination of telltales, texts, and visuals to explain the situation. Our notifications are simple to understand, communicate when the vehicle needs service, and alerts customer if an issue arises. The customer leaves the experience feeling confident

knowing the system explains the proper actions to take. Any notifications that appear in the driver's instrument cluster retire to the center display so the driver can recall still relevant notifications later.

The Rivian R1S and R1T provide warning tell-tale lights on the driver's display for minor and major defects. A message and audible tone may also be provided for some major defects. Detailed descriptions of the warnings can be found in the owner's guide.

#### **08.11.01 Cut off terminal voltages for prevention of battery damage**

Battery management control system is programmed to prevent a state of under-voltage or over-voltage per the voltage limits defined by Rivian. Contactor opens and DTCs are set when voltage of the battery is below 315 V (264.6V if cell temperature is below 5°C) or above 459 V.

**09.00.00 (Reserved)**

**10.00.00 (Reserved)**

**11.00.00 Starting and shifting schedules**

**12.00.00 (Reserved)**

**13.00.00 (Reserved)**

**14.00.00 (Reserved)**

**15.00.00 (Reserved)**

**16.00.00 (Reserved)**

**17.00.00 California requirements**

**17.01.00 Statement of compliance**

Every vehicle which is covered by this application conforms to US EPA Federal Tier 3 Bin 0 regulations applicable to new Medium Duty Passenger Vehicles and state of California ZEV regulations applicable to new Medium-Duty Vehicles for the 2025 Model Year.

**17.01.01 General statement**

Rivian confirms that the production vehicles covered by this application will be substantially the same as the vehicles tested for the purposes of this application.

**17.01.02 Drivability statement**

As of 01/01/2006, This statement is no longer included in the California Exhaust Emission Standards and Test Procedures.

**17.02.00 Supplemental Data and Certification Review Sheets**

See end of document for ZEV Supplemental Sheets

**17.03.00 (Reserved)**

**17.04.00 Credits**

**17.04.01 Description of multi-manufacturer arrangements**

N/A

**17.04.02 Credit calculation**

### **17.05.00 Vehicle Safety**

The Rivian architecture comprises a body attached to a skateboard frame structure. The primary structure encompasses engineered crush zones used to, in case of crash, absorb the crash energy. The “safety cage” comprises of body pillars, side impact bars, floor sills and roof rails (working with other structural elements) and with an advanced optimized restraint system to help properly restrain and protect occupants.

#### **17.05.01 All information for safe operation of vehicle**

See sections 03.04.00, 03.05.00, and 11.00.00.

#### **17.05.02 Information on safe handling of battery system**

The high voltage battery is to be serviced and handled only by technicians authorized by Rivian.

#### **17.05.03 Description of emergency procedures**

Emergency procedures are described in the owner’s manual. Please refer to the owner’s manual for details. Emergency procedures for first responders are described in the Emergency Response Guide provided for this vehicle.

#### **17.06.00 (Reserved)**

Test Results:

R1S Dual Standard (20in)

EPA EV Multicycle Calculator (SAE J1634 Oct 2012)

**Manufacturer:** RIVIAN  
**Carline:** R1S  
**Model Year:** 2025  
**Vehicle:** R1S 284X (20")  
**Test Number:**  
**Comments:** **ALL PURPOSE**  
**Lab:** FEV  
**Test Date:** 3/7/2024

D.Good March 8, 2016

Cycle	Energy (Wh)	Distance (mi)	ECdc_cyc	Kuwt	Kwgt
UDDS1	1985.54	7.443	266.77	66.69	5.71
UDDS2	1821.96	7.446	244.69	61.17	79.82
UDDS3	1813.13	7.394	245.21	61.30	79.99
UDDS4	1795.37	7.437	241.42	60.36	78.75
HWY1	2981.52	10.251	290.84	145.42	
HWY2	2938.52	10.268	286.18	143.09	
SS1	71875.07	198.222	362.60		
SS2	7614.615	20.500	371.45		
<b>TOTAL</b>	<b>92825.73</b>	<b>268.961</b>			

Recharge  
 AC WattHrs  
**109679**

K-Factors	UDDS1	UDDS2	UDDS3	UDDS4	HWY1	HWY2
Unweighted	0.250	0.250	0.250	0.250	0.500	0.500
Weighted	0.021	0.326	0.326	0.328	NA	NA

Results	Range (mi)	AC Wh/mi	MPGe	kWh/100mi
UDDSu	<b>372.01</b>	<b>294.83</b>		
UDDSw	<b>380.018</b>	<b>288.62</b>	116.7818	28.8615
HWY	<b>321.743</b>	<b>340.89</b>	98.8734	34.0891

EPA version
kWh/100mi
28.86151
34.08906

MCT Results	whdc/mi	mi/kwhdc	mi/kwhac
UDDS	244.2665	4.0939	3.4648
HFEDS	288.5093	3.4661	2.9335

Range	0.7 Adj	Adj	MPGe	MPGe
Factor	0.7000	0.72798	0.7000	0.72798
City	266.01	276.65	81.7473	85.0148
Hwy	225.22	234.22	69.2114	71.9778
<b>Combined</b>	<b>247.66</b>	<b>257.55</b>	<b>75.59</b>	<b>78.61</b>



## R1S Dual Standard (22in)

### EPA EV Multicycle Calculator (SAE J1634 Oct 2012)

Manufacturer: RIVIAN

As used by EPA laboratory

Carline: R1S

Model Year: 2025

D.Good March 8, 2016

Vehicle: R1S 284X (22")

Test Number

Comments: **ALL PURPOSE**

Lab: FEV

Test Date: **3/28/2024**

Cycle	Energy (Wh)	Distance (mi)	ECdc_cyc	Kuwgt	Kwgt	Recharge AC WattHrs
UDDS1	1809.74	7.42	243.74	60.94	4.78	106922
UDDS2	1687.61	7.41	227.75	56.94	74.43	
UDDS3	1684.20	7.45	226.15	56.54	73.91	
UDDS4	1701.20	7.44	228.80	57.20	74.77	
HWY1	2778.89	10.22	271.92	135.96		
HWY2	2788.04	10.27	271.56	135.78		
SS1	71480.51	204.59	349.39			
SS2	8420.03	23.54	357.66			
<b>TOTAL</b>	<b>92350.22</b>	<b>278.333</b>				

K-Factors	UDDS1	UDDS2	UDDS3	UDDS4	HWY1	HWY2
Unweighted	0.250	0.250	0.250	0.250	0.500	0.500
Weighted	0.020	0.327	0.327	0.327	NA	NA

Results	Range (mi)	AC Wh/mi	EPA version	
			MPGe	kWh/100mi
UDDSu	<b>398.73</b>	<b>268.16</b>		
UDDSw	<b>405.25</b>	<b>263.84</b>	127.7468	26.3842
HWY	<b>339.85</b>	<b>314.61</b>	107.1323	31.4611

MCT Results	whdc/mi	mi/kwhdc	mi/kwhac
UDDS	227.8856	4.3882	3.7901
HFEDS	271.7355	3.6800	3.1785

Range				
	0.7 Adj	Adj	MPGe	MPGe
Factor	0.70000	0.71902	0.70000	0.71902
City	283.67	291.38	89.4227	91.8529
Hwy	237.90	244.36	74.9926	77.0306
<b>Combined</b>	<b>263.07</b>	<b>270.22</b>	<b>82.30</b>	<b>84.53</b>

# US EPA Fee Form

[Help and EPA Instructions](#)

\* Required Field

## General Information

Date: 03/16/2024

Process Code \*

Submit New Fee Filing Form

Manufacturer Code \*

RIV

Manufacturer Name \*

Rivian Automotive LLC

Contact Name \*

Sep Zaker

Contact Email Address \*

sepzaker@rivian.com

Contact Phone \*

3175152201

Calendar Year complete application submitted to EPA \*

2024

**PLEASE NOTE: These fees apply to complete certification applications received by EPA from January 1, 2024, through December 31, 2024. The applicable fee is determined by the calendar year in which the complete certification application is received, not the model year.**

Engine Family / Evaporative Family / Test Group \*

SRIVT00.01L2

## Certificate Request Type (Industry Sector Code)

### Certificate Request Type \*

- On-Highway LDV, LTD, MDVPV, HDV Chassis Cert (Federal) (A, B, D, J, T, V)
- On-Highway HDE Dyno Cert (Federal) (E, H)
- On-Highway LD ICI, MDPV ICI, HDV ICI (A, B, D, J, T, V)
- On-Highway Motorcycle (C)
- On-Highway HDV Evap (F)
- On-Highway LDV, LTD, MDVPV, HDV Chassis Cert (California-Only) (A, B, D, J, T, V)
- On-Highway HDE Dyno Cert (California-Only) (E, H)
- Nonroad CI (L)
- Nonroad SI (B, S)
- Locomotive (G, K)
- All Nonroad Recreational, excluding Marine engines (X, Y)
- All Marine (Including IMO) (M, N, W)
- Component Certification for Evaporative Emissions (P)

### IMO Name (Required for dual US/IMO Marine Only)

### ICI VIN Number (Required for ICIs Only)

### Do you qualify for a Reduced Fee? \*

## Payment Information

### Amount Owed

### Payment Type \*

## Comments

EPA Form Number 3520-29

OMB Control No. 2060-0545

Approval expires 12/31/2022

The public reporting and recordkeeping burden for this collection of information is estimated to average 12 minutes per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed forms to this address.

The content of this document may contain Sensitive But Unclassified (SBU) data and/or Controlled Unclassified Information (CUI).

**Certification Summary Information Report**

<b>Manufacturer</b>	Rivian Automotive LLC	<b>Manufacturer Code</b>	RIV
<b>Test Group</b>	SRIVT00.01L2	<b>Evaporative/Refueling Family</b>	--
<b>Certificate Number</b>	--	<b>CARB Executive Order #</b>	--
<b>Certificate Issue Date</b>	--	<b>Certificate Revision Date</b>	--
<b>Certificate Effective Date</b>	--	<b>Conditional Certificate</b>	--
<b>CSI Revision #</b>	--	<b>CSI Submission/Revision Date</b>	04/10/2024 11:24:43 PM
<b>Model Year</b>	2025		

  
**Test Group Information**

<b>CSI Type</b>	Update for Correction	<b>Running Change Reference Number</b>	--
<b>GHG Exempt Status</b>	Not Exempt		

  
**Drive Sources and Fuel(s)**

**Drive Source #1:** Electric Motor

<b>Fuel</b>	<b>Basic Fuel Metering System</b>	<b>Lean Burn Strategy Indicator</b>
Electricity	--	--

<b>Hybrid Indicator</b>	No		
<b>Multiple Fuel Storage</b>	--	<b>Rechargeable Energy Storage System Indicator</b>	Yes
<b>Multiple Fuel Combustion</b>	--	<b>Off-board Charge Capable Indicator</b>	Yes
<b>Fuel Cell Indicator</b>	No	<b>EPA Vehicle Class</b>	MDPV
<b>Federal Clean Fuel Vehicle</b>	Yes	<b>Federal Clean Fuel Vehicle Standard</b>	ZEV
<b>Federal Clean Fuel Vehicle ILEV</b>	No	<b>California Partial Zero Emissions Vehicle Indicator</b>	--
<b>Durability Group Name</b>	SRIVR00001L2	<b>Durability Group Equivalency Factor</b>	1
<b>Reduced Fee Test Group</b>	No	<b>Certification Region Code(s)</b>	FA, CA
<b>Complies with HD GHG 2b/3 regulations?</b>	No		
<b>Introduction into Commerce Date</b>	--	<b>CAP2000 Conditional Certificate?</b>	N/A
<b>Independent Commercial Importer?</b>	--	<b>Alternative Fuel Converter Certificate?</b>	--
<b>SFTP Federal Composite Compliance Identifier</b>	Not Applicable	<b>SFTP Tier 2 Composite CO Option</b>	No
<b>SFTP LEV-III Composite Compliance Indicator</b>	No		
<b>OBD Compliance Type</b>	CARB	<b>OBD Demonstration Vehicle Test Group</b>	SRIVT00.01L2
<b>Test Group OBD Compliance Level</b>	Full - no deficiencies	<b>Number of Test Group OBD Deficiencies</b>	0
<b>OBD Deficiencies Comments</b>	OBD COMPLIANCE IS NOT APPLICABLE TO ZEV. PARAMETERS ARE PLACEHOLDERS TO ALLOW DATASET SUBMISSION.		
<b>Mfr Test Group Comments</b>	DURABILITY IS NOT APPLICABLE TO ZEV. PARAMETERS ARE PLACEHOLDERS TO ALLOW DATASET SUBMISSION.		
<b>Mfr Exhaust / Evap Standards Comments</b>	--		

### Certification Summary Information Report

<b>Test Group</b>	SRIVT00.01L2	<b>Evaporative/Refueling Family</b>	--
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**Models Covered by this Certificate**

Carline Manufacturer	Division	Carline	Certification Region Code(s)	Drive System	Trans - Type	- # of Gears	Trans - Lockup
Rivian Automotive LLC	1 - Rivian	770 - R1T Dual Standard (20in)	Federal	Part-time 4-Wheel Drive	Automatic	1	No
Rivian Automotive LLC	1 - Rivian	572 - R1S Dual Standard (22in)	California + CAA Section 177 states	Part-time 4-Wheel Drive	Automatic	1	No
Rivian Automotive LLC	1 - Rivian	570 - R1S Dual Standard (20in)	California + CAA Section 177 states	Part-time 4-Wheel Drive	Automatic	1	No
Rivian Automotive LLC	1 - Rivian	770 - R1T Dual Standard (20in)	California + CAA Section 177 states	Part-time 4-Wheel Drive	Automatic	1	No
Rivian Automotive LLC	1 - Rivian	570 - R1S Dual Standard (20in)	Federal	Part-time 4-Wheel Drive	Automatic	1	No
Rivian Automotive LLC	1 - Rivian	772 - R1T Dual Standard (22in)	California + CAA Section 177 states	Part-time 4-Wheel Drive	Automatic	1	No
Rivian Automotive LLC	1 - Rivian	572 - R1S Dual Standard (22in)	Federal	Part-time 4-Wheel Drive	Automatic	1	No
Rivian Automotive LLC	1 - Rivian	772 - R1T Dual Standard (22in)	Federal	Part-time 4-Wheel Drive	Automatic	1	No

**Engine Description**

Hybrid Type	--	Hybrid Description	--
Engine Type	--	Mfr Engine Description	--
Engine Block Arrangement	--	Mfr Engine Block Arrangement Description	--
Camless Valvetrain Indicator	--	Oil Viscosity/Classification	
Number of Cylinders/Rotors	--	Mechanically Variable Compression Ratio Indicator	--

**After Treatment Device(s) (ATD)**

Mfr After Treatment Device (ATD) Comments	--
Direct Ozone Reduction (DOR) Device	--
Mfr Emission Control Device Comments	--

**Official Test Numbers**

Test Group	Fuel	FTP	US06	SC03	Cold CO	Highway	EPA City Litmus Value	EPA City Litmus Threshold	EPA Highway Litmus Value	EPA Highway Litmus Threshold	CREE Weighting Factor
Electricity		--	--	--	--	--	--	--	--	--	--

**SFTP LEV-III Official Test Numbers**

Test Group Fuel	FTP	US06	SC03
Electricity	--	--	--

## Certification Summary Information Report

Test Group	SRIVT00.01L2	Evaporative/Refueling Family	--
<b>Hybrid Electric Vehicle And Fuel Cell Information</b>			
Rechargeable Energy Storage System	Battery(s)	Rechargeable Energy Storage System, if Other	--
Battery Type	LITHIUM FERRO-PHOSPHATE	Number of Battery Packs	1
Total Voltage of Battery Packs	403	Battery Energy Capacity	235
Battery Specific Energy	130	Battery Charger Type	Both
Number of Capacitors	--	Capacitor Rating (In Farads)	--
Mfr Capacitor Comments	--		
Hydraulic System Description	--		
Regenerative Braking Type	Electrical Regen Brake		
Regenerative Braking Source	Both	Driver Controlled Regenerative Braking	Yes
Mfr Regenerative Braking Description	--		
Drive Motor(s)/Generator(s)	2		
Motor/Generator Type 1	AC Permanent Magnet	Rated Motor/Generator Power	208
Motor/Generator Type 2	AC Permanent Magnet	Rated Motor/Generator Power	208
Mfr Fuel Cell Description	--		
Fuel Cell On-Board H2 Storage Capacity (kg)	--	Usable H2 Fill Capacity (kg)	--
Mfr Hybrid Electric/ Electric Vehicle Comments	All-Purpose (Default) Drive Mode		

### Certification Summary Information Report

<b>Test Group</b>	SRIVT00.01L2	<b>Evaporative/Refueling Family</b>	--
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**Emission Data Vehicle Information**

Vehicle ID / Configuration	R1S284XR20 / 0	Manufacturer Vehicle Configuration Number	0
Original Test Group Name	SRIVT00.01L2	Original Evaporative/Refueling Family	--
Original Test Vehicle Model Year	2025		
<b>Vehicle Model</b>			
Represented Test Vehicle Make	Rivian	Represented Test Vehicle Model	R1S Dual Standard (20in)

**Leak Family Details**

Leak Family Identifier	--	Leak Family Name	--
------------------------	----	------------------	----

**Drive Sources and Fuel System Details**

Drive Source and Fuel#	Drive Source	Fuel
1	Electric Motor	Electricity

Hybrid Indicator	No		
Multiple Fuel Storage	--	Multiple Fuel Combustion	--
Fuel Cell Indicator	No	Rechargeable Energy Storage System Indicator	Yes
Rechargeable Energy Storage System	Battery(s)	Rechargeable Energy Storage System, if 'Other'	--
Off-board charge Capable Indicator	Yes		
Odometer Correction -- Initial	1	Odometer Correction Factor	1
Odometer Correction Sign	+ = System Miles is equal to (Test odometer reading * Correction factor) + Initial system miles		
Odometer Correction Units	Miles		
Engine Code	264X2RW	Rated Horsepower	533
Displacement (liters)	99.999		
Air Aspiration Method	Naturally Aspirated	Air Aspiration Method, if 'Other'	Electric
Number of Air Aspiration Devices	--	Air Aspiration Device Configuration	--
Charge Air Cooler Type	--	Drive Mode While Testing	Part-time 4-Wheel Drive
Shift Indicator Light Usage	Not equipped	Aged Emission Components	4,000 (mi)
Curb Weight (lbs)	6462	Equivalent Test Weight (pounds)	7000
GVWR (lbs)	--	N/V Ratio	999
Axle Ratio	9.99		
Transmission Type	Automatic	# of Transmission Gears	1
Transmission Lockup	No	Creeper Gear	No



## Certification Summary Information Report

Test Group		SRIVT00.01L2			Evaporative/Refueling Family			--
<b>Dynamometer Coefficients:</b>								
		Target Coefficients			Set Coefficients			EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients
Coefficient Category	A (lbf)	B (lbf/mph)	C (lbf/mph**2)	A (lbf)	B (lbf/mph)	C (lbf/mph**2)		
City/Highway/Evap	43.66	0.484	0.02154	-7.5	0.106	0.02393	16.2	
Cold CO	48.03	0.5324	0.02369	-14.31	-0.108	0.0267	N/A	
US06	43.66	0.484	0.02154	-7.5	0.106	0.02393	N/A	
Emission Control Device Comments	Battery Electric Vehicle							
Manufacturer Test Vehicle Comments	FDU Axle Ratio: 11.0:1 RDU Axle Ratio: 13.7:1 FDU N/V: 139.5 RDU N/V: 112.0							

## Certification Summary Information Report

<b>Test Group</b>	SRIVT00.01L2	<b>Evaporative/Refueling Family</b>	--
<b>Test #</b>	<b>SRIV10085194</b>	<b>Test Procedure</b>	<b>2 - CVS 75 and later (w/o can. load)</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	62 - Electricity
<b>Test Date</b>	03/11/2024	<b>Fuel</b>	Electricity
<b>Fuel Batch ID</b>	--	<b>Fuel Calibration Number</b>	--
<b>Vehicle Class</b>	MDPV (Federal Tier 2, GVWR 8501-10000)	<b>DF Type</b>	EPA Assigned
<b>Verify Test Lab ID</b>	FEV Michigan		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	2800	<b>Odometer Units</b>	M
<b>4WD Test Dyno</b>	Yes	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	Yes		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 86 (+/- 2 mph, +/- 1 sec)	<b>Road Speed Fan Usage</b>	Yes

## Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (kilowatt-hour per 100 miles)
METHANE (CH4 - Methane)	0	--
CO (Carbon Monoxide)	0	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-0.4	--
DT-EER (Drive Trace Energy Economy Rating)	-0.35	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-0.22	--
MFR FE (Manufacturer Fuel Economy)	25.36	132.9061514
NOX (Nitrogen Oxide)	0	--
N2O (Nitrous Oxide)	0	--
HC-NM (Non-methane Hydrocarbon)	0	--
NMOG (Non-methane organic gases)	0	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	0	0
Optional Carbon-Related Exhaust Emissions	0	0

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	0	--

## Manufacturer Test Comments

R1S - Drive Mode: All-Purpose (Default Mode) Dual Motor, Standard Battery Pack, and 20" Tires. Cycle 1: 282.98 Wh/mi, Cycle 2: 228.21 Wh/mi, Cycle 3: 274.65 Wh/mi, Cycle 4: 232.33 Wh/mi.

### Certification Summary Information Report

Test Group		SRIVT00.01L2				Evaporative/Refueling Family				--		
Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	150,000 miles	Federal Tier 3 Bin 0	CO	0.0	--	--	--	0	--	0	0	Pass
CA	150,000 miles	California ZEV	CO	0.0	--	--	--	0	--	0	0	Pass

### Certification Summary Information Report

<b>Test Group</b>	SRIVT00.01L2	<b>Evaporative/Refueling Family</b>	--
<b>Test #</b>	<b>SRIV10085195</b>	<b>Test Procedure</b>	<b>3 - HWFE</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	62 - Electricity
<b>Test Date</b>	03/11/2024	<b>Fuel</b>	N/A
<b>Fuel Batch ID</b>	--	<b>Fuel Calibration Number</b>	--
<b>Vehicle Class</b>	N/A	<b>DF Type</b>	EPA Assigned
<b>Verify Test Lab ID</b>	FEV Michigan		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	2800	<b>Odometer Units</b>	M
<b>4WD Test Dyno</b>	Yes	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	Yes		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 86 (+/- 2 mph, +/- 1 sec)	<b>Road Speed Fan Usage</b>	Yes

**Test Results**

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (kilowatt-hour per 100 miles)
<b>METHANE (CH4 - Methane)</b>	0	--
<b>CO (Carbon Monoxide)</b>	0	--
<b>DT-ASCR (Drive Trace Absolute Speed Change Rating)</b>	-0.7	--
<b>DT-EER (Drive Trace Energy Economy Rating)</b>	-0.59	--
<b>DT-IWRR (Drive Trace Inertia Work Ratio Rating)</b>	-0.96	--
<b>MFR FE (Manufacturer Fuel Economy)</b>	28.82	116.9500347
<b>NOX (Nitrogen Oxide)</b>	0	--
<b>N2O (Nitrous Oxide)</b>	0	--
<b>HC-NM (Non-methane Hydrocarbon)</b>	0	--
<b>NMOG (Non-methane organic gases)</b>	0	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
<b>Carbon-Related Exhaust Emissions</b>	0	0
<b>Optional Carbon-Related Exhaust Emissions</b>	0	0

Test Result Name	Unrounded Test Result	Verify Calculated CO2
<b>Carbon dioxide</b>	0	--

**Manufacturer Test Comments**

R1S - Drive Mode: All-Purpose (Default Mode) Dual Motor, Standard Battery Pack, and 20" Tires. Cycle 1: 288.58 Wh/mi

### Certification Summary Information Report

<b>Test Group</b>	SRIVT00.01L2	<b>Evaporative/Refueling Family</b>	--
<b>Test #</b>	<b>SRIV10085196</b>	<b>Test Procedure</b>	<b>90 - US06</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	62 - Electricity
<b>Test Date</b>	03/11/2024	<b>Fuel</b>	N/A
<b>Fuel Batch ID</b>	--	<b>Fuel Calibration Number</b>	--
<b>Vehicle Class</b>	N/A	<b>DF Type</b>	EPA Assigned
<b>Verify Test Lab ID</b>	FEV Michigan		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	2830	<b>Odometer Units</b>	M
<b>4WD Test Dyno</b>	Yes	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	Yes		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 86 (+/- 2 mph, +/- 1 sec)	<b>Road Speed Fan Usage</b>	Yes

**Test Results**

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (kilowatt-hour per 100 miles)
METHANE (CH4 - Methane)	0	--
CO (Carbon Monoxide)	0	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-0.04	--
DT-EER (Drive Trace Energy Economy Rating)	0.84	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-0.19	--
MFR FE (Manufacturer Fuel Economy)	38.36	87.8649635
NOX (Nitrogen Oxide)	0	--
N2O (Nitrous Oxide)	0	--
HC-NM (Non-methane Hydrocarbon)	0	--
NMOG (Non-methane organic gases)	0	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	0	--
Optional Carbon-Related Exhaust Emissions	0	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	0	--

**Manufacturer Test Comments**

R1S - Drive Mode: All-Purpose (Default Mode) Dual Motor, Standard Battery Pack, and 20" Tires. Cycle 1 (City1): 359.81 Wh/mi, Cycle 2 (HWY): 382.66 Wh/mi, Cycle 3 (City2): 456.96 Wh/mi

## Certification Summary Information Report

<b>Test Group</b>	SRIVT00.01L2	<b>Evaporative/Refueling Family</b>	--
<b>Test #</b>	<b>SRIV10085197</b>	<b>Test Procedure</b>	<b>95 - SC03</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	62 - Electricity
<b>Test Date</b>	03/11/2024	<b>Fuel</b>	N/A
<b>Fuel Batch ID</b>	--	<b>Fuel Calibration Number</b>	--
<b>Vehicle Class</b>	N/A	<b>DF Type</b>	EPA Assigned
<b>Verify Test Lab ID</b>	FEV Michigan		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	2825	<b>Odometer Units</b>	M
<b>4WD Test Dyno</b>	Yes	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	Yes		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 86 (+/- 2 mph, +/- 1 sec)	<b>Road Speed Fan Usage</b>	Yes

## Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (kilowatt-hour per 100 miles)
<b>METHANE (CH4 - Methane)</b>	0	--
<b>CO (Carbon Monoxide)</b>	0	--
<b>DT-ASCR (Drive Trace Absolute Speed Change Rating)</b>	-0.05	--
<b>DT-EER (Drive Trace Energy Economy Rating)</b>	-0.06	--
<b>DT-IWRR (Drive Trace Inertia Work Ratio Rating)</b>	0.04	--
<b>MFR FE (Manufacturer Fuel Economy)</b>	33.33	101.1251125
<b>NOX (Nitrogen Oxide)</b>	0	--
<b>N2O (Nitrous Oxide)</b>	0	--
<b>HC-NM (Non-methane Hydrocarbon)</b>	0	--
<b>NMOG (Non-methane organic gases)</b>	0	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
<b>Carbon-Related Exhaust Emissions</b>	0	--
<b>Optional Carbon-Related Exhaust Emissions</b>	0	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
<b>Carbon dioxide</b>	0	--

## Manufacturer Test Comments

R1S - Drive Mode: All-Purpose (Default Mode) Dual Motor, Standard Battery Pack, and 20" Tires. Cycle 1: 333.74 Wh/mi

### Certification Summary Information Report

<b>Test Group</b>	SRIVT00.01L2	<b>Evaporative/Refueling Family</b>	--
<b>Test #</b>	<b>SRIV10085193</b>	<b>Test Procedure</b>	<b>77 - Multi-Cycle Test (MCT)</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	62 - Electricity
<b>Test Date</b>	03/07/2024	<b>Fuel</b>	N/A
<b>Fuel Batch ID</b>	--	<b>Fuel Calibration Number</b>	--
<b>Vehicle Class</b>	N/A	<b>DF Type</b>	EPA Assigned
<b>Verify Test Lab ID</b>	FEV Michigan		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	2425	<b>Odometer Units</b>	M
<b>4WD Test Dyno</b>	Yes	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	Yes		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 86 (+/- 2 mph, +/- 1 sec)	<b>Road Speed Fan Usage</b>	Yes

**PHEV/EV Charge Depleting Test Information**

<b>Recharge Event Voltage</b>	240	<b>Recharge Event Energy (kiloWatt-hours)</b>	109.68
<b>Charge Depleting Range (Calculated miles)</b>	380.02	<b>Charge Depleting Range (Actual miles)</b>	380.02
<b>Charge Depleting Range Highway (Calculated miles)</b>	321.74	<b>Derived 5-Cycle Coefficient Model Year</b>	--
<b>All Electric Range Unadjusted (miles)</b>	--	<b>Equivalent All Electric Range (miles)</b>	380.02
<b>Number of Charge Depleting Bags/Phases Conducted</b>	8	<b>Transition Bag/Phase Number</b>	--

**Charge Depleting Bag/Phase**

Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result
1	Actual Distance Driven (miles)	10.251
2	Carbon-Related Exhaust Emissions	0
3	Drive Trace Absolute Speed Change Rating	1.42
4	Drive Trace Energy Economy Rating	0.42
5	Drive Trace Inertia Work Ratio Rating	1.42
6	Integrated DC KW-HRS	2.982
7	Manufacturer Fuel Economy	29.08

**Charge Depleting Bag/Phase**

Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result
8	Actual Distance Driven (miles)	7.437
9	Carbon-Related Exhaust Emissions	0
10	Drive Trace Absolute Speed Change Rating	0.82
11	Drive Trace Energy Economy Rating	0.25
12	Drive Trace Inertia Work Ratio Rating	1.05
13	Integrated DC KW-HRS	1.795
14	Manufacturer Fuel Economy	24.14

## Certification Summary Information Report

Test Group	SRIVT00.01L2	Evaporative/Refueling Family	--
<b>Charge Depleting Bag/Phase</b>			
Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result	
15	Actual Distance Driven (miles)	10.268	
16	Carbon-Related Exhaust Emissions	0	
17	Drive Trace Absolute Speed Change Rating	2.33	
18	Drive Trace Energy Economy Rating	0.68	
19	Drive Trace Inertia Work Ratio Rating	3.11	
20	Integrated DC KW-HRS	2.939	
21	Manufacturer Fuel Economy	28.62	
<b>Charge Depleting Bag/Phase</b>			
Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result	
22	Actual Distance Driven (miles)	198.222	
23	Carbon-Related Exhaust Emissions	0	
24	Drive Trace Absolute Speed Change Rating	30.13	
25	Drive Trace Energy Economy Rating	-0.05	
26	Drive Trace Inertia Work Ratio Rating	60.22	
27	Integrated DC KW-HRS	71.875	
28	Manufacturer Fuel Economy	36.26	
<b>Charge Depleting Bag/Phase</b>			
Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result	
29	Actual Distance Driven (miles)	20.5	
30	Carbon-Related Exhaust Emissions	0	
31	Drive Trace Absolute Speed Change Rating	99.9	
32	Drive Trace Energy Economy Rating	-0.61	
33	Drive Trace Inertia Work Ratio Rating	22.8	
34	Integrated DC KW-HRS	7.615	
35	Manufacturer Fuel Economy	37.15	
<b>Charge Depleting Bag/Phase</b>			
Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result	
36	Actual Distance Driven (miles)	7.394	
37	Carbon-Related Exhaust Emissions	0	
38	Drive Trace Absolute Speed Change Rating	0.51	
39	Drive Trace Energy Economy Rating	1.04	
40	Drive Trace Inertia Work Ratio Rating	0.8	
41	Integrated DC KW-HRS	1.813	
42	Manufacturer Fuel Economy	24.52	



## Certification Summary Information Report

<b>Test Group</b>	SRIVT00.01L2	<b>Evaporative/Refueling Family</b>	--
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**Charge Depleting Bag/Phase**

Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result
43	Actual Distance Driven (miles)	7.446
44	Carbon-Related Exhaust Emissions	0
45	Drive Trace Absolute Speed Change Rating	0.66
46	Drive Trace Energy Economy Rating	0.13
47	Drive Trace Inertia Work Ratio Rating	1.28
48	Integrated DC KW-HRS	1.822
49	Manufacturer Fuel Economy	24.47

**Charge Depleting Bag/Phase**

Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result
50	Actual Distance Driven (miles)	7.443
51	Carbon-Related Exhaust Emissions	0
52	Drive Trace Absolute Speed Change Rating	1.23
53	Drive Trace Energy Economy Rating	0.83
54	Drive Trace Inertia Work Ratio Rating	2.03
55	Integrated DC KW-HRS	1.986
56	Manufacturer Fuel Economy	26.68

**Manufacturer Test Comments**

R1S - Drive Mode: All-Purpose (Default Mode) Dual Motor, Standard Battery Pack, and 20" Tires. UDDS1: 266.77 Wh/mi, UDDS2: 244.69 Wh/mi, UDDS3: 245.21 Wh/mi, UDDS4: 241.42 Wh/mi. UDDS1 Energy: 1985.54 Wh HWY1: 290.84 Wh/mi, HWY2: 286.18 Wh/mi MCT Energy: 109679 Wh

### Certification Summary Information Report

<b>Test Group</b>	SRIVT00.01L2	<b>Evaporative/Refueling Family</b>	--
<b>Test #</b>	<b>SRIV10085198</b>	<b>Test Procedure</b>	<b>86 - Charge Depleting 20 Degree F FTP</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	62 - Electricity
<b>Test Date</b>	03/10/2024	<b>Fuel</b>	N/A
<b>Fuel Batch ID</b>	--	<b>Fuel Calibration Number</b>	--
<b>Vehicle Class</b>	N/A	<b>DF Type</b>	EPA Assigned
<b>Verify Test Lab ID</b>	FEV Michigan		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	2785	<b>Odometer Units</b>	M
<b>4WD Test Dyno</b>	Yes	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	Yes		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 86 (+/- 2 mph, +/- 1 sec)	<b>Road Speed Fan Usage</b>	Yes

**PHEV/EV Charge Depleting Test Information**

<b>Recharge Event Voltage</b>	240	<b>Recharge Event Energy (kiloWatt-hours)</b>	109.68
<b>Charge Depleting Range (Calculated miles)</b>	14.9	<b>Charge Depleting Range (Actual miles)</b>	14.9
<b>Charge Depleting Range Highway (Calculated miles)</b>	--	<b>Derived 5-Cycle Coefficient Model Year</b>	--
<b>All Electric Range Unadjusted (miles)</b>	--	<b>Equivalent All Electric Range (miles)</b>	14.9
<b>Number of Charge Depleting Bags/Phases Conducted</b>	4	<b>Transition Bag/Phase Number</b>	--

**Charge Depleting Bag/Phase**

Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result
1	Actual Distance Driven (miles)	3.59
2	Carbon-Related Exhaust Emissions	0
3	Drive Trace Absolute Speed Change Rating	-0.81
4	Drive Trace Energy Economy Rating	-0.77
5	Drive Trace Inertia Work Ratio Rating	-1.99
6	Integrated DC KW-HRS	1.44
7	Manufacturer Fuel Economy	40.12

**Charge Depleting Bag/Phase**

### Certification Summary Information Report

<b>Test Group</b>	SRIVT00.01L2	<b>Evaporative/Refueling Family</b>	--
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Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result
8	Actual Distance Driven (miles)	3.588
9	Carbon-Related Exhaust Emissions	0
10	Drive Trace Absolute Speed Change Rating	0.73
11	Drive Trace Energy Economy Rating	-0.31
12	Drive Trace Inertia Work Ratio Rating	1.04
13	Integrated DC KW-HRS	1.765
14	Manufacturer Fuel Economy	49.18

**Charge Depleting Bag/Phase**

Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result
15	Actual Distance Driven (miles)	3.859
16	Carbon-Related Exhaust Emissions	0
17	Drive Trace Absolute Speed Change Rating	0.09
18	Drive Trace Energy Economy Rating	-0.63
19	Drive Trace Inertia Work Ratio Rating	0.54
20	Integrated DC KW-HRS	1.471
21	Manufacturer Fuel Economy	38.13

**Charge Depleting Bag/Phase**

Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result
22	Actual Distance Driven (miles)	3.864
23	Carbon-Related Exhaust Emissions	0
24	Drive Trace Absolute Speed Change Rating	0.47
25	Drive Trace Energy Economy Rating	-0.21
26	Drive Trace Inertia Work Ratio Rating	0.86
27	Integrated DC KW-HRS	1.285
28	Manufacturer Fuel Economy	33.24

**Manufacturer Test Comments**

R1S - Drive Mode: All-Purpose (Default Mode) Dual Motor, Standard Battery Pack, and 20" Tires. Cycle 1: 491.77 Wh/mi, Cycle 2: 381.25 Wh/mi, Cycle 3: 401.26 Wh/mi, Cycle 4: 332.46 Wh/mi,

## Certification Summary Information Report

<b>Test Group</b>	SRIVT00.01L2	<b>Evaporative/Refueling Family</b>	--						
<b>Emission Data Vehicle Information</b>									
<b>Vehicle ID / Configuration</b>	R1S284XR22 / 0	<b>Manufacturer Vehicle Configuration Number</b>	0						
<b>Original Test Group Name</b>	SRIVT00.01L2	<b>Original Evaporative/Refueling Family</b>	--						
<b>Original Test Vehicle Model Year</b>	2025								
<b>Vehicle Model</b>									
<b>Represented Test Vehicle Make</b>	Rivian	<b>Represented Test Vehicle Model</b>	R1S Dual Standard (22in)						
<b>Leak Family Details</b>									
<b>Leak Family Identifier</b>	--	<b>Leak Family Name</b>	--						
<b>Drive Sources and Fuel System Details</b>									
<table border="1"> <thead> <tr> <th>Drive Source and Fuel#</th> <th>Drive Source</th> <th>Fuel</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Electric Motor</td> <td>Electricity</td> </tr> </tbody> </table>				Drive Source and Fuel#	Drive Source	Fuel	1	Electric Motor	Electricity
Drive Source and Fuel#	Drive Source	Fuel							
1	Electric Motor	Electricity							
<b>Hybrid Indicator</b>	No								
<b>Multiple Fuel Storage</b>	--	<b>Multiple Fuel Combustion</b>	--						
<b>Fuel Cell Indicator</b>	No	<b>Rechargeable Energy Storage System Indicator</b>	Yes						
<b>Rechargeable Energy Storage System</b>	Battery(s)	<b>Rechargeable Energy Storage System, if 'Other'</b>	--						
<b>Off-board charge Capable Indicator</b>	Yes								
<b>Odometer Correction -- Initial</b>	1	<b>Odometer Correction Factor</b>	1						
<b>Odometer Correction Sign</b>	+ = System Miles is equal to (Test odometer reading * Correction factor) + Initial system miles								
<b>Odometer Correction Units</b>	Miles								
<b>Engine Code</b>	264X2RW	<b>Rated Horsepower</b>	533						
<b>Displacement (liters)</b>	99.999								
<b>Air Aspiration Method</b>	Naturally Aspirated	<b>Air Aspiration Method, if 'Other'</b>	Electric						
<b>Number of Air Aspiration Devices</b>	--	<b>Air Aspiration Device Configuration</b>	--						
<b>Charge Air Cooler Type</b>	--	<b>Drive Mode While Testing</b>	Part-time 4-Wheel Drive						
<b>Shift Indicator Light Usage</b>	Not equipped	<b>Aged Emission Components</b>	4,000 (mi)						
<b>Curb Weight (lbs)</b>	6532	<b>Equivalent Test Weight (pounds)</b>	7000						
<b>GVWR (lbs)</b>	--	<b>N/V Ratio</b>	999						
<b>Axle Ratio</b>	9.99								
<b>Transmission Type</b>	Automatic	<b># of Transmission Gears</b>	1						
<b>Transmission Lockup</b>	No	<b>Creeper Gear</b>	No						

### Certification Summary Information Report

<b>Test Group</b>	SRIVT00.01L2	<b>Evaporative/Refueling Family</b>	--
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**Dynamometer Coefficients:**

Coefficient Category	Target Coefficients			Set Coefficients			EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients
	A (lbf)	B (lbf/mph)	C (lbf/mph**2)	A (lbf)	B (lbf/mph)	C (lbf/mph**2)	
<b>City/Highway/Evap</b>	38.69	0.4763	0.02168	-8.38	0.2232	0.02377	15.6
<b>Cold CO</b>	42.56	0.5239	0.02385	-10.69	-0.0698	0.02767	N/A
<b>US06</b>	38.69	0.4763	0.02168	-8.38	0.2232	0.02377	N/A

**Emission Control Device Comments**

Battery Electric Vehicle

**Manufacturer Test Vehicle Comments**

FDU Axle Ratio: 11.0:1 RDU Axle Ratio: 13.7:1 FDU N/V: 140.4 RDU N/V: 112.7

### Certification Summary Information Report

<b>Test Group</b>	SRIVT00.01L2	<b>Evaporative/Refueling Family</b>	--
<b>Test #</b>	<b>SRIV10085588</b>	<b>Test Procedure</b>	<b>2 - CVS 75 and later (w/o can. load)</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	62 - Electricity
<b>Test Date</b>	04/05/2024	<b>Fuel</b>	Electricity
<b>Fuel Batch ID</b>	--	<b>Fuel Calibration Number</b>	--
<b>Vehicle Class</b>	MDPV (Federal Tier 2, GVWR 8501-10000)	<b>DF Type</b>	EPA Assigned
<b>Verify Test Lab ID</b>	FEV Michigan		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	3665	<b>Odometer Units</b>	M
<b>4WD Test Dyno</b>	Yes	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	Yes		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 86 (+/- 2 mph, +/- 1 sec)	<b>Road Speed Fan Usage</b>	Yes

**Test Results**

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (kilowatt-hour per 100 miles)
METHANE (CH4 - Methane)	0	--
CO (Carbon Monoxide)	0	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-0.07	--
DT-EER (Drive Trace Energy Economy Rating)	-0.48	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.16	--
MFR FE (Manufacturer Fuel Economy)	23.57	142.9995757
NOX (Nitrogen Oxide)	0	--
N2O (Nitrous Oxide)	0	--
HC-NM (Non-methane Hydrocarbon)	0	--
NMOG (Non-methane organic gases)	0	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	0	0
Optional Carbon-Related Exhaust Emissions	0	0

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	0	--

**Manufacturer Test Comments**

R1S - Drive Mode: All-Purpose (Default Mode) Dual Motor, Standard Battery Pack, and 22" Tires. Cycle 1: 266.73 Wh/mi, Cycle 2: 212.96 Wh/mi, Cycle 3: 257.90 Wh/mi, Cycle 4: 208.85 Wh/mi.

### Certification Summary Information Report

Test Group		SRIVT00.01L2				Evaporative/Refueling Family				--		
Certification Region	Useful Life	Standard Level	Emission Name	Rounded Result	RAF	NMOG/NM HC Ratio	Diesel Adjustment Factor	Add DF	Mult DF	Certification Level	Standard	Pass/Fail
Fed	150,000 miles	Federal Tier 3 Bin 0	CO	0.0	--	--	--	0	--	0	0	Pass
CA	150,000 miles	California ZEV	CO	0.0	--	--	--	0	--	0	0	Pass

## Certification Summary Information Report

<b>Test Group</b>	SRIVT00.01L2	<b>Evaporative/Refueling Family</b>	--
<b>Test #</b>	<b>SRIV10085587</b>	<b>Test Procedure</b>	<b>3 - HWFE</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	62 - Electricity
<b>Test Date</b>	04/05/2024	<b>Fuel</b>	N/A
<b>Fuel Batch ID</b>	--	<b>Fuel Calibration Number</b>	--
<b>Vehicle Class</b>	N/A	<b>DF Type</b>	EPA Assigned
<b>Verify Test Lab ID</b>	FEV Michigan		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	3665	<b>Odometer Units</b>	M
<b>4WD Test Dyno</b>	Yes	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	Yes		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 86 (+/- 2 mph, +/- 1 sec)	<b>Road Speed Fan Usage</b>	Yes

## Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (kilowatt-hour per 100 miles)
METHANE (CH4 - Methane)	0	--
CO (Carbon Monoxide)	0	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-1.06	--
DT-EER (Drive Trace Energy Economy Rating)	-0.52	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-1.17	--
MFR FE (Manufacturer Fuel Economy)	27.19	123.9610151
NOX (Nitrogen Oxide)	0	--
N2O (Nitrous Oxide)	0	--
HC-NM (Non-methane Hydrocarbon)	0	--
NMOG (Non-methane organic gases)	0	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
Carbon-Related Exhaust Emissions	0	0
Optional Carbon-Related Exhaust Emissions	0	0

Test Result Name	Unrounded Test Result	Verify Calculated CO2
Carbon dioxide	0	--

## Manufacturer Test Comments

R1S - Drive Mode: All-Purpose (Default Mode) Dual Motor, Standard Battery Pack, and 22" Tires. Cycle 1: 271.85 Wh/mi



### Certification Summary Information Report

<b>Test Group</b>	SRIVT00.01L2	<b>Evaporative/Refueling Family</b>	--
<b>Test #</b>	<b>SRIV10085586</b>	<b>Test Procedure</b>	<b>90 - US06</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	62 - Electricity
<b>Test Date</b>	04/05/2024	<b>Fuel</b>	N/A
<b>Fuel Batch ID</b>	--	<b>Fuel Calibration Number</b>	--
<b>Vehicle Class</b>	N/A	<b>DF Type</b>	EPA Assigned
<b>Verify Test Lab ID</b>	FEV Michigan		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	3705	<b>Odometer Units</b>	M
<b>4WD Test Dyno</b>	Yes	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	Yes		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 86 (+/- 2 mph, +/- 1 sec)	<b>Road Speed Fan Usage</b>	Yes

**Test Results**

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (kilowatt-hour per 100 miles)
<b>METHANE (CH4 - Methane)</b>	0	--
<b>CO (Carbon Monoxide)</b>	0	--
<b>DT-ASCR (Drive Trace Absolute Speed Change Rating)</b>	-0.75	--
<b>DT-EER (Drive Trace Energy Economy Rating)</b>	1.57	--
<b>DT-IWRR (Drive Trace Inertia Work Ratio Rating)</b>	-1	--
<b>MFR FE (Manufacturer Fuel Economy)</b>	36.95	91.217862
<b>NOX (Nitrogen Oxide)</b>	0	--
<b>N2O (Nitrous Oxide)</b>	0	--
<b>HC-NM (Non-methane Hydrocarbon)</b>	0	--
<b>NMOG (Non-methane organic gases)</b>	0	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
<b>Carbon-Related Exhaust Emissions</b>	0	--
<b>Optional Carbon-Related Exhaust Emissions</b>	0	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
<b>Carbon dioxide</b>	0	--

**Manufacturer Test Comments**

R1S - Drive Mode: All-Purpose (Default Mode) Dual Motor, Standard Battery Pack, and 22" Tires. Cycle 1 (City1): 345.60 Wh/mi, Cycle 2 (HWY): 369.46 Wh/mi, Cycle 3 (City2): 432.39 Wh/mi

## Certification Summary Information Report

<b>Test Group</b>	SRIVT00.01L2	<b>Evaporative/Refueling Family</b>	--
<b>Test #</b>	<b>SRIV10085584</b>	<b>Test Procedure</b>	<b>95 - SC03</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	62 - Electricity
<b>Test Date</b>	04/05/2024	<b>Fuel</b>	N/A
<b>Fuel Batch ID</b>	--	<b>Fuel Calibration Number</b>	--
<b>Vehicle Class</b>	N/A	<b>DF Type</b>	EPA Assigned
<b>Verify Test Lab ID</b>	FEV Michigan		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	3698	<b>Odometer Units</b>	M
<b>4WD Test Dyno</b>	Yes	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	Yes		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 86 (+/- 2 mph, +/- 1 sec)	<b>Road Speed Fan Usage</b>	Yes

## Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (kilowatt-hour per 100 miles)
<b>METHANE (CH4 - Methane)</b>	0	--
<b>CO (Carbon Monoxide)</b>	0	--
<b>DT-ASCR (Drive Trace Absolute Speed Change Rating)</b>	1.36	--
<b>DT-EER (Drive Trace Energy Economy Rating)</b>	0.89	--
<b>DT-IWRR (Drive Trace Inertia Work Ratio Rating)</b>	1.33	--
<b>MFR FE (Manufacturer Fuel Economy)</b>	31.34	107.5462668
<b>NOX (Nitrogen Oxide)</b>	0	--
<b>N2O (Nitrous Oxide)</b>	0	--
<b>HC-NM (Non-methane Hydrocarbon)</b>	0	--
<b>NMOG (Non-methane organic gases)</b>	0	--

Test Result Name	Unrounded Test Result	Verify Calculated CREE/OPT-CREE
<b>Carbon-Related Exhaust Emissions</b>	0	--
<b>Optional Carbon-Related Exhaust Emissions</b>	0	--

Test Result Name	Unrounded Test Result	Verify Calculated CO2
<b>Carbon dioxide</b>	0	--

## Manufacturer Test Comments

R1S - Drive Mode: All-Purpose (Default Mode) Dual Motor, Standard Battery Pack, and 22" Tires. Cycle 1: 313.36 Wh/mi

**Certification Summary Information Report**

<b>Test Group</b>	SRIVT00.01L2	<b>Evaporative/Refueling Family</b>	--
<b>Test #</b>	<b>SRIV10085583</b>	<b>Test Procedure</b>	<b>86 - Charge Depleting 20 Degree F FTP</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	62 - Electricity
<b>Test Date</b>	04/04/2024	<b>Fuel</b>	N/A
<b>Fuel Batch ID</b>	--	<b>Fuel Calibration Number</b>	--
<b>Vehicle Class</b>	N/A	<b>DF Type</b>	EPA Assigned
<b>Verify Test Lab ID</b>	FEV Michigan		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	3650	<b>Odometer Units</b>	M
<b>4WD Test Dyno</b>	Yes	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	Yes		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 86 (+/- 2 mph, +/- 1 sec)	<b>Road Speed Fan Usage</b>	Yes

**PHEV/EV Charge Depleting Test Information**

<b>Recharge Event Voltage</b>	240	<b>Recharge Event Energy (kiloWatt-hours)</b>	106.92
<b>Charge Depleting Range (Calculated miles)</b>	14.9	<b>Charge Depleting Range (Actual miles)</b>	14.9
<b>Charge Depleting Range Highway (Calculated miles)</b>	--	<b>Derived 5-Cycle Coefficient Model Year</b>	--
<b>All Electric Range Unadjusted (miles)</b>	--	<b>Equivalent All Electric Range (miles)</b>	14.9
<b>Number of Charge Depleting Bags/Phases Conducted</b>	4	<b>Transition Bag/Phase Number</b>	--

**Charge Depleting Bag/Phase**

Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result
1	Actual Distance Driven (miles)	3.851
2	Carbon-Related Exhaust Emissions	0
3	Drive Trace Absolute Speed Change Rating	0.53
4	Drive Trace Energy Economy Rating	0.12
5	Drive Trace Inertia Work Ratio Rating	0.72
6	Integrated DC KW-HRS	1.366
7	Manufacturer Fuel Economy	35.47

**Charge Depleting Bag/Phase**

### Certification Summary Information Report

<b>Test Group</b>	SRIVT00.01L2	<b>Evaporative/Refueling Family</b>	--
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Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result
8	Actual Distance Driven (miles)	3.596
9	Carbon-Related Exhaust Emissions	0
10	Drive Trace Absolute Speed Change Rating	-0.66
11	Drive Trace Energy Economy Rating	-0.48
12	Drive Trace Inertia Work Ratio Rating	-0.89
13	Integrated DC KW-HRS	1.605
14	Manufacturer Fuel Economy	44.63

**Charge Depleting Bag/Phase**

Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result
15	Actual Distance Driven (miles)	3.839
16	Carbon-Related Exhaust Emissions	0
17	Drive Trace Absolute Speed Change Rating	0.84
18	Drive Trace Energy Economy Rating	0.54
19	Drive Trace Inertia Work Ratio Rating	0.82
20	Integrated DC KW-HRS	1.221
21	Manufacturer Fuel Economy	31.79

**Charge Depleting Bag/Phase**

Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result
22	Actual Distance Driven (miles)	3.597
23	Carbon-Related Exhaust Emissions	0
24	Drive Trace Absolute Speed Change Rating	-0.56
25	Drive Trace Energy Economy Rating	0.02
26	Drive Trace Inertia Work Ratio Rating	-0.97
27	Integrated DC KW-HRS	1.34
28	Manufacturer Fuel Economy	37.26

**Manufacturer Test Comments**

R1S - Drive Mode: All-Purpose (Default Mode) Dual Motor, Standard Battery Pack, and 22" Tires. Cycle 1: 446.27 Wh/mi, Cycle 2: 354.73 Wh/mi, Cycle 3: 372.61 Wh/mi, Cycle 4: 317.92 Wh/mi,

### Certification Summary Information Report

<b>Test Group</b>	SRIVT00.01L2	<b>Evaporative/Refueling Family</b>	--
<b>Test #</b>	<b>SRIV10085585</b>	<b>Test Procedure</b>	<b>77 - Multi-Cycle Test (MCT)</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	62 - Electricity
<b>Test Date</b>	03/28/2024	<b>Fuel</b>	N/A
<b>Fuel Batch ID</b>	--	<b>Fuel Calibration Number</b>	--
<b>Vehicle Class</b>	N/A	<b>DF Type</b>	EPA Assigned
<b>Verify Test Lab ID</b>	FEV Michigan		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	3278	<b>Odometer Units</b>	M
<b>4WD Test Dyno</b>	Yes	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	Yes		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 86 (+/- 2 mph, +/- 1 sec)	<b>Road Speed Fan Usage</b>	Yes

**PHEV/EV Charge Depleting Test Information**

<b>Recharge Event Voltage</b>	240	<b>Recharge Event Energy (kiloWatt-hours)</b>	106.92
<b>Charge Depleting Range (Calculated miles)</b>	405.25	<b>Charge Depleting Range (Actual miles)</b>	405.25
<b>Charge Depleting Range Highway (Calculated miles)</b>	339.85	<b>Derived 5-Cycle Coefficient Model Year</b>	--
<b>All Electric Range Unadjusted (miles)</b>	--	<b>Equivalent All Electric Range (miles)</b>	405.25
<b>Number of Charge Depleting Bags/Phases Conducted</b>	8	<b>Transition Bag/Phase Number</b>	--

**Charge Depleting Bag/Phase**

Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result
1	Actual Distance Driven (miles)	7.41
2	Carbon-Related Exhaust Emissions	0
3	Drive Trace Absolute Speed Change Rating	-0.87
4	Drive Trace Energy Economy Rating	-0.79
5	Drive Trace Inertia Work Ratio Rating	-1.66
6	Integrated DC KW-HRS	1.688
7	Manufacturer Fuel Economy	22.78

**Charge Depleting Bag/Phase**

Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result
8	Actual Distance Driven (miles)	7.447
9	Carbon-Related Exhaust Emissions	0
10	Drive Trace Absolute Speed Change Rating	0.66
11	Drive Trace Energy Economy Rating	0.06
12	Drive Trace Inertia Work Ratio Rating	1.13
13	Integrated DC KW-HRS	1.684
14	Manufacturer Fuel Economy	22.62

## Certification Summary Information Report

Test Group	SRIVT00.01L2	Evaporative/Refueling Family	--
<b>Charge Depleting Bag/Phase</b>			
Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result	
15	Actual Distance Driven (miles)	10.22	
16	Carbon-Related Exhaust Emissions	0	
17	Drive Trace Absolute Speed Change Rating	-2.78	
18	Drive Trace Energy Economy Rating	-0.72	
19	Drive Trace Inertia Work Ratio Rating	-3.16	
20	Integrated DC KW-HRS	2.779	
21	Manufacturer Fuel Economy	27.19	
<b>Charge Depleting Bag/Phase</b>			
Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result	
22	Actual Distance Driven (miles)	7.425	
23	Carbon-Related Exhaust Emissions	0	
24	Drive Trace Absolute Speed Change Rating	-0.07	
25	Drive Trace Energy Economy Rating	-0.79	
26	Drive Trace Inertia Work Ratio Rating	-0.47	
27	Integrated DC KW-HRS	1.81	
28	Manufacturer Fuel Economy	24.37	
<b>Charge Depleting Bag/Phase</b>			
Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result	
29	Actual Distance Driven (miles)	204.588	
30	Carbon-Related Exhaust Emissions	0	
31	Drive Trace Absolute Speed Change Rating	32.97	
32	Drive Trace Energy Economy Rating	-0.92	
33	Drive Trace Inertia Work Ratio Rating	66	
34	Integrated DC KW-HRS	71.481	
35	Manufacturer Fuel Economy	34.94	
<b>Charge Depleting Bag/Phase</b>			
Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result	
36	Actual Distance Driven (miles)	7.435	
37	Carbon-Related Exhaust Emissions	0	
38	Drive Trace Absolute Speed Change Rating	1.33	
39	Drive Trace Energy Economy Rating	0.87	
40	Drive Trace Inertia Work Ratio Rating	2.12	
41	Integrated DC KW-HRS	1.701	
42	Manufacturer Fuel Economy	22.88	

## Certification Summary Information Report

Test Group	SRIVT00.01L2	Evaporative/Refueling Family	--
<b>Charge Depleting Bag/Phase</b>			
Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result	
43	Actual Distance Driven (miles)	23.542	
44	Carbon-Related Exhaust Emissions	0	
45	Drive Trace Absolute Speed Change Rating	99.9	
46	Drive Trace Energy Economy Rating	-0.23	
47	Drive Trace Inertia Work Ratio Rating	30.26	
48	Integrated DC KW-HRS	8.42	
49	Manufacturer Fuel Economy	35.77	
<b>Charge Depleting Bag/Phase</b>			
Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result	
50	Actual Distance Driven (miles)	10.267	
51	Carbon-Related Exhaust Emissions	0	
52	Drive Trace Absolute Speed Change Rating	2.97	
53	Drive Trace Energy Economy Rating	0.22	
54	Drive Trace Inertia Work Ratio Rating	3.77	
55	Integrated DC KW-HRS	2.788	
56	Manufacturer Fuel Economy	27.16	
<b>Manufacturer Test Comments</b>	R1S - Drive Mode: All-Purpose (Default Mode) Dual Motor, Standard Battery Pack, and 22" Tires. UDDS1: 243.74 Wh/mi, UDDS2: 227.75 Wh/mi, UDDS3: 226.15 Wh/mi, UDDS4: 228.80 Wh/mi. UDDS1 Energy: 1809.74 Wh HWY1: 271.92 Wh/mi, HWY2: 271.56 Wh/mi MCT Energy: 92350.22 Wh		
<b>Fuel Properties</b>			

### Certification Summary Information Report

<b>Test Group</b>	SRIVT00.01L2	<b>Evaporative/Refueling Family</b>	--
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#### Consolidated List of Standards

**Exhaust Standards**

<b>Cert Region</b>	Federal	<b>Cert/In-Use Code</b>	Cert
<b>Vehicle Class</b>	MDPV (Federal Tier 2, GVWR 8501-10000)	<b>Standard Level</b>	Federal Tier 3 Bin 0
<b>Fuel</b>	Electricity	<b>Test Procedure</b>	Charge Depleting Highway

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
150,000 miles	CO	--	--	--	--	--	--	0	0
150,000 miles	CO-COMP	--	--	--	--	--	--	0	0
150,000 miles	CREE	--	--	--	--	--	--	0	0
150,000 miles	NMOG+NOX-COMP	--	--	--	--	--	--	0	0

<b>Cert Region</b>	Federal	<b>Cert/In-Use Code</b>	Cert
<b>Vehicle Class</b>	MDPV (Federal Tier 2, GVWR 8501-10000)	<b>Standard Level</b>	Federal Tier 3 Bin 0
<b>Fuel</b>	Electricity	<b>Test Procedure</b>	Charge Depleting UDDS

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
150,000 miles	CO	--	--	--	--	--	--	0	0
150,000 miles	CO-COMP	--	--	--	--	--	--	0	0
150,000 miles	CREE	--	--	--	--	--	--	0	0
150,000 miles	NMOG+NOX-COMP	--	--	--	--	--	--	0	0

<b>Cert Region</b>	California + CAA Section 177 states	<b>Cert/In-Use Code</b>	Cert
<b>Vehicle Class</b>	MDPV (Federal Tier 2, GVWR 8501-10000)	<b>Standard Level</b>	California ZEV
<b>Fuel</b>	Electricity	<b>Test Procedure</b>	Charge Depleting UDDS

Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
150,000 miles	CO	--	--	--	--	--	--	0	0
150,000 miles	CO-COMP	--	--	--	--	--	--	0	0
150,000 miles	CREE	--	--	--	--	--	--	0	0
150,000 miles	NMOG+NOX-COMP	--	--	--	--	--	--	0	0



### Certification Summary Information Report

<b>Test Group</b>		SRIVT00.01L2			<b>Evaporative/Refueling Family</b>			--		
<b>Cert Region</b>		Federal			<b>Cert/In-Use Code</b>			Cert		
<b>Vehicle Class</b>		MDPV (Federal Tier 2, GVWR 8501-10000)			<b>Standard Level</b>			Federal Tier 3 Bin 0		
<b>Fuel</b>		Electricity			<b>Test Procedure</b>			CVS 75 and later (w/o can. load)		
<b>Useful Life</b>	<b>Emission Name</b>	<b>Rounded Result</b>	<b>RAF</b>	<b>NMOG / NMHC</b>	<b>Upward Diesel Adjustment Factor</b>	<b>Downward Diesel Adjustment Factor</b>	<b>Mult DF</b>	<b>Add DF</b>	<b>Std</b>	
150,000 miles	CO	--	--	--	--	--	--	0	0	

<b>Cert Region</b>		California + CAA Section 177 states			<b>Cert/In-Use Code</b>			Cert		
<b>Vehicle Class</b>		MDPV (Federal Tier 2, GVWR 8501-10000)			<b>Standard Level</b>			California ZEV		
<b>Fuel</b>		Electricity			<b>Test Procedure</b>			Charge Depleting Highway		
<b>Useful Life</b>	<b>Emission Name</b>	<b>Rounded Result</b>	<b>RAF</b>	<b>NMOG / NMHC</b>	<b>Upward Diesel Adjustment Factor</b>	<b>Downward Diesel Adjustment Factor</b>	<b>Mult DF</b>	<b>Add DF</b>	<b>Std</b>	
150,000 miles	CO	--	--	--	--	--	--	0	0	
150,000 miles	CO-COMP	--	--	--	--	--	--	0	0	
150,000 miles	CREE	--	--	--	--	--	--	0	0	
150,000 miles	NMOG+NOX-COMP	--	--	--	--	--	--	0	0	

<b>Cert Region</b>		California + CAA Section 177 states			<b>Cert/In-Use Code</b>			Cert		
<b>Vehicle Class</b>		MDPV (Federal Tier 2, GVWR 8501-10000)			<b>Standard Level</b>			California ZEV		
<b>Fuel</b>		Electricity			<b>Test Procedure</b>			CVS 75 and later (w/o can. load)		
<b>Useful Life</b>	<b>Emission Name</b>	<b>Rounded Result</b>	<b>RAF</b>	<b>NMOG / NMHC</b>	<b>Upward Diesel Adjustment Factor</b>	<b>Downward Diesel Adjustment Factor</b>	<b>Mult DF</b>	<b>Add DF</b>	<b>Std</b>	
150,000 miles	CO	--	--	--	--	--	--	0	0	

## Certification Summary Information Report

Test Group	SRIVT00.01L2	Evaporative/Refueling Family	--
<b>Glossary</b>			
<b>Useful Life</b>			
4	4,000 miles	120	120,000 miles
50	50,000 miles	150	150,000 miles
100	100,000 miles		
<b>Emission Name</b>			
HC-TOTAL	Total Hydrocarbon	N2O	Nitrous Oxide
CO	Carbon Monoxide	SPITBACK	Spitback Hydrocarbon in grams
CO2	Carbon dioxide	AMP-HRS	Integrated Amp-hours
CREE	Carbon-Related Exhaust Emissions	START-SOC	System Start State of Charge Watt-hours
OPT-CREE	Optional Carbon-Related Exhaust Emissions	END-SOC	System End State of Charge Watt-hours
NOX	Nitrogen Oxide	ACT-DISTANCE	Actual Distance Driven (miles)
PM	Particulate Matter	AS-VOLT	Average System Voltage
PM-COMP	SFTP Composite Particulate Matter	CO2 BAG 1	Bag 1 Carbon Dioxide
HC-NM	Non-methane Hydrocarbon	CO2 BAG 2	Bag 2 Carbon Dioxide
OMHCE	Organic material Hydrocarbon Equivalent	CO2 BAG 3	Bag 3 Carbon Dioxide
OMNMHCE	Organic material non-methane HC equivalent	CO2 BAG 4	Bag 4 Carbon Dioxide
NMOG	Non-methane organic gases	NMOG+NOX	Non-methane organic gases plus Nitrogen Oxides
HCHO	Formaldehyde	NMOG+NOX-COMP	SFTP Composite Non-methane Organic Gases + Nitrogen Oxides
H3C2HO	Acetaldehyde	DT-IWRR	Drive Trace Inertia Work Ratio Rating
HC-NM+NOX	SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03	DT-ASCR	Drive Trace Absolute Speed Change Rating
HC-NM+NOX-COMP	SFTP Composite Non-methane Hydrocarbon + Nitrogen Oxides	DT-EER	Drive Trace Energy Economy Rating
CO-COMP	SFTP Composite Carbon Monoxide	COMB-CREE	Combined Carbon-Related Exhaust Emissions
ETHANOL	C2H5OH - Ethanol	COMB-OPT-CREE	Combined Optional Carbon-Related Exhaust Emissions
FE BAG 1	Bag 1 Fuel Economy	HC-TOTAL-EQUIV	Total Hydrocarbon equivalent - Evap only
FE BAG 2	Bag 2 Fuel Economy	METHANE-COMB	Combined CH4 for HD 2b/3 vehicles only
FE BAG 3	Bag 3 Fuel Economy	N2O-COMB	Combined Nitrous Oxide for HD 2b/3 vehicles only
FE BAG 4	Bag 4 Fuel Economy	LEAK-DIA	Effective Leak Diameter (inches)
MFR FE	Manufacturer Fuel Economy	LEAK-GAS CAP	Gas Cap Leakage (cc/min)
HC	Hydrocarbon for Running Loss and ORVR	CO2-COMB	Combined Carbon Dioxide for HD 2b/3 Vehicles Only
METHANE	CH4 - Methane	KW-HRS	Integrated DC KW-HRS
METHANOL	CH3OH - Methanol		
<b>Certification Region</b>			
CA	California + CAA Section 177 states	FA	Federal
<b>Exhaust Emission Standard Level</b>			
B1	Federal Tier 2 Bin 1	L3ULEV340	California LEV-III ULEV340
B2	Federal Tier 2 Bin 2	L3ULEV250	California LEV-III ULEV250
B3	Federal Tier 2 Bin 3	L3ULEV200	California LEV-III ULEV200
B4	Federal Tier 2 Bin 4	L3SULEV170	California LEV-III SULEV170

## Certification Summary Information Report

Test Group	SRIVT00.01L2	Evaporative/Refueling Family	--
B5	Federal Tier 2 Bin 5	L3SULEV150	California LEV-III SULEV150
B6	Federal Tier 2 Bin 6	L3LEV630	California LEV-III LEV630
B7	Federal Tier 2 Bin 7	L3ULEV570	California LEV-III ULEV570
B8	Federal Tier 2 Bin 8	L3ULEV400	California LEV-III ULEV400
B9	Federal Tier 2 Bin 9	L3ULEV270	California LEV-III ULEV270
B10	Federal Tier 2 Bin 10	L3SULEV230	California LEV-III SULEV230
B11	Federal Tier 2 Bin 11	L3SULEV200	California LEV-III SULEV200
HDV1	HDV1 (Federal HD chassis Class 2b GVW 8501-10000)	T3B160	Federal Tier 3 Bin 160
HDV2	HDV2 (Federal HD chassis Class 3 GVW 10001-14000)	T3B125	Federal Tier 3 Bin 125
L2	California LEV-II LEV	T3B110	Federal Tier 3 Transitional Bin 110
L2OP	California LEV-II LEV Optional	T3B85	Federal Tier 3 Transitional Bin 85
U2	California LEV-II ULEV	T3SULEV30	Federal Tier 3 Transitional LEV-II SULEV30 Carryover
S2	California LEV-II SULEV	T3B70	Federal Tier 3 Bin 70
ZEV	California ZEV	T3B50	Federal Tier 3 Bin 50
OT	Other	T3B30	Federal Tier 3 Bin 30
T1	Federal Tier 1	T3B20	Federal Tier 3 Bin 20
PZEV	California PZEV	T3B0	Federal Tier 3 Bin 0
L2LEV160	California LEV-II LEV160	HDV2B395	Federal Tier 3 HD Class 2b Transitional Bin 395
L2ULEV125	California LEV-II ULEV125	HDV2B340	Federal Tier 3 HD Class 2b Transitional Bin 340
L2SULEV30	California LEV-II SULEV30	HDV2B250	Federal Tier 3 HD Class 2b Bin 250
L2LEV395	California LEV-II LEV395	HDV2B200	Federal Tier 3 HD Class 2b Bin 200
L2ULEV340	California LEV-II ULEV340	HDV2B170	Federal Tier 3 HD Class 2b Bin 170
L2LEV630	California LEV-II LEV630	HDV2B150	Federal Tier 3 HD Class 2b Bin 150
L2ULEV570	California LEV-II ULEV570	HDV2B0	Federal Tier 3 HD Class 2b Bin 0
L3LEV160	California LEV-III LEV160	HDV3B630	Federal Tier 3 HD Class 3 Transitional Bin 630
L3ULEV125	California LEV-III ULEV125	HDV3B570	Federal Tier 3 HD Class 3 Transitional Bin 570
L3ULEV70	California LEV-III ULEV70	HDV3B400	Federal Tier 3 HD Class 3 Bin 400
L3ULEV50	California LEV-III ULEV50	HDV3B270	Federal Tier 3 HD Class 3 Bin 270
L3SULEV30	California LEV-III SULEV30	HDV3B230	Federal Tier 3 HD Class 3 Bin 230
L3SULEV20	California LEV-III SULEV20	HDV3B200	Federal Tier 3 HD Class 3 Bin 200
L3LEV395	California LEV-III LEV395	HDV3B0	Federal Tier 3 HD Class 3 Bin 0
<b>Transmission Type Code</b>			
AMS	Automated Manual- Selectable (e.g. Automated Manual with paddles)	M	Manual
A	Automatic	OT	Other
AM	Automated Manual	SA	Semi-Automatic
CVT	Continuously Variable	SCV	Selectable Continuously Variable (e.g. CVT with paddles)
<b>Drive System Code</b>			
4	4-Wheel Drive	P	Part-time 4-Wheel Drive
F	2-Wheel Drive, Front	A	All Wheel Drive

## Certification Summary Information Report

Test Group	SRIVT00.01L2	Evaporative/Refueling Family		--
R	2-Wheel Drive, Rear			
<b>Additional Terms and Acronyms</b>				
AFC	Alternative Fuel Converter	ICI	Independent Commercial Importer	
CSI	Certificate Summary Information	ORVR	Onboard Refueling Vapor Recovery	
DF	Deterioration Factor	SIL	Shift Indicator Light	
Evap	Evaporation, Evaporative	Trans	Transmission	

Suggested ZEV Application Format for Certification

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2025 MODEL-YEAR AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET  
ZEV-PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES

Manufacturer: Rivian Automotive, LLC Test Group: SRIVT00.01L2

Vehicle Class(es): PC\_\_\_\_, LDT1 (0-3750 lbs. LVW)\_\_\_\_, LDT2 ( $\geq$  3,751 lbs. LVW)\_\_\_\_,  
MDV6 (8,500-10,000 lbs. GVW)X, MDV7 (10,001-14,000 lbs. GVW)\_\_\_\_

ZEV Type: NEV\_\_\_\_, ZEVX

No. of ZEV Credits per vehicle: 4.0

Fuel Type: Electro-chemical BatteryX, Fuel Cell\_\_\_\_, Capacitor\_\_\_\_, Other (specify)\_\_\_\_

Battery Type(s): Lead Acid\_\_\_\_ Nickel Cadmium\_\_\_\_ SBLA\_\_\_\_ Sodium Sulfur\_\_\_\_

Sodium Nickel Chloride\_\_\_\_ Nickel Metal Hydride\_\_\_\_ Lithium Metal Disulfide\_\_\_\_

Zinc Air\_\_\_\_ Zinc Bromine\_\_\_\_ Lithium Polymer\_\_\_\_, Lithium Ion\_\_\_\_,

Other (specify): Lithium Ferro-Phosphate

Total Battery Weight (kg.): 727 Total Battery Volume (liters): 505

No. of batteries or modules per vehicle: 1 Total Battery Voltage: 403.2

Charger(s): On-boardX Off-boardX ConductiveX Inductive\_\_\_\_.

Drive Motors(s): AC Induction\_\_\_\_ DC Brush\_\_\_\_. DC Brushless\_\_\_\_

Switched Reluctance\_\_\_\_ Other (specify): AC Permanent Magnet.

No. of Drive Motors2 Rated motor power 208 kW @ 6000 rpm Max rpm: 16000.

Drive: FWD\_\_\_\_ RWD\_\_\_\_ 4WD-FT\_\_\_\_ 4WD-PTX

Regenerative Braking: No\_\_\_\_ YesX FW\_\_\_\_ RW\_\_\_\_ AWX.

Driver Controlled Regen Braking: YesX No\_\_\_\_ Coast Regen Braking: YesX No\_\_\_\_.

Air Conditioning: YesX No\_\_\_\_, Fuel Fired Heater:<sup>1</sup> Yes\_\_\_\_ NoX.

Vehicle Make & Models (If coded, see attachments)	Trans type M5, A4 (If applicable)	GVWR	Curb Weight	ETW or Test Weight	DPA / RLHP or Dyno Coeff. a=, b=, c=
Make: Rivian Model: R1S Dual Standard (20in) R1T Dual Standard (20in)	Automatic	8532 lbs.	6532 lbs. (R1S) 6507 lbs. (R1T)	7000 lbs.	a: 43.66 lbf b: 0.4840 lbf/mph c: 0.02154 lbf/mph <sup>2</sup>

Date Issued: 04/10/2024 Revisions:

<sup>1</sup> Fuel fired heaters are not allowed in pure ZEVs for model year 2009 and subsequently.

Suggested ZEV Application Format for Certification

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2025 MODEL-YEAR AIR RESOURCES BOARD CERTIFICATION REVIEW SHEET  
ZEV-PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES

Manufacturer: Rivian Automotive, LLC Test Group: SRIVT00.01L2

Range Test Results							
Vehicle ID	Trans	(check one)	(check one)	City Range	System AC (Wh/mi)	System DC (Wh/mi)	Vehicle DC (Wh/mi)
		<u>      </u> TW <u>  X  </u> ETW	<u>      </u> DPA <u>      </u> RLHP Or dyno coeff.				
R1S284XR20	Auto	7000 lbs.	a: -7.50 lbf b: 0.1060 lbf/mph c: 0.02393 lbf/mph <sup>2</sup>	380.02	288.62	244.27	244.27
				Hwy. Range	System AC (Wh/mi)	System DC (Wh/mi)	Vehicle DC (Wh/mi)
				321.74	340.89	288.51	288.51

Battery Test Results: PASS Specific Energy: Wh/kg 130

Remarks:

Date Issued: 04/10/2024 Revisions:

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Application:

Processed By: \_\_\_\_\_ Date: \_\_\_\_\_ Reviewed by: \_\_\_\_\_ Date: \_\_\_\_\_

Suggested ZEV Application Format for Certification

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2025 MODEL-YEAR AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET  
ZEV-PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES

Manufacturer: Rivian Automotive, LLC Test Group: SRIVT00.01L2

Vehicle Class(es): PC\_\_\_\_, LDT1 (0-3750 lbs. LVW)\_\_\_\_, LDT2 ( $\geq$  3,751 lbs. LVW)\_\_\_\_,  
MDV6 (8,500-10,000 lbs. GVW)X, MDV7 (10,001-14,000 lbs. GVW)\_\_\_\_

ZEV Type: NEV\_\_\_\_, ZEVX

No. of ZEV Credits per vehicle: 4.0

Fuel Type: Electro-chemical BatteryX, Fuel Cell\_\_\_\_, Capacitor\_\_\_\_, Other (specify)\_\_\_\_

Battery Type(s): Lead Acid\_\_\_\_ Nickel Cadmium\_\_\_\_ SBLA\_\_\_\_ Sodium Sulfur\_\_\_\_

Sodium Nickel Chloride\_\_\_\_ Nickel Metal Hydride\_\_\_\_ Lithium Metal Disulfide\_\_\_\_

Zinc Air\_\_\_\_ Zinc Bromine\_\_\_\_ Lithium Polymer\_\_\_\_, Lithium Ion\_\_\_\_,

Other (specify): Lithium Ferro-Phosphate

Total Battery Weight (kg.): 727 Total Battery Volume (liters): 505

No. of batteries or modules per vehicle: 1 Total Battery Voltage: 403.2

Charger(s): On-boardX Off-boardX ConductiveX Inductive\_\_\_\_.

Drive Motors(s): AC Induction\_\_\_\_ DC Brush\_\_\_\_. DC Brushless\_\_\_\_

Switched Reluctance\_\_\_\_ Other (specify): AC Permanent Magnet.

No. of Drive Motors2 Rated motor power 208 kW @ 6000 rpm Max rpm: 16000.

Drive: FWD\_\_\_\_ RWD\_\_\_\_ 4WD-FT\_\_\_\_ 4WD-PTX

Regenerative Braking: No\_\_\_\_ YesX FW\_\_\_\_ RW\_\_\_\_ AWX.

Driver Controlled Regen Braking: YesX No\_\_\_\_ Coast Regen Braking: YesX No\_\_\_\_.

Air Conditioning: YesX No\_\_\_\_, Fuel Fired Heater:<sup>1</sup> Yes\_\_\_\_ NoX.

Vehicle Make & Models (If coded, see attachments)	Trans type M5, A4 (If applicable)	GVWR	Curb Weight	ETW or Test Weight	DPA / RLHP or Dyno Coeff. a=, b=, c=
Make: Rivian Model: R1S Dual Standard (22in) R1T Dual Standard (22in)	Automatic	8532 lbs.	6532 lbs. (R1S) 6507 lbs. (R1T)	7000 lbs.	a: 38.69 lbf b: 0.4763 lbf/mph c: 0.02168 lbf/mph <sup>2</sup>

Date Issued: 04/10/2024 Revisions:

<sup>1</sup> Fuel fired heaters are not allowed in pure ZEVs for model year 2009 and subsequently.

Suggested ZEV Application Format for Certification

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2025 MODEL-YEAR AIR RESOURCES BOARD CERTIFICATION REVIEW SHEET  
ZEV-PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES

Manufacturer: Rivian Automotive, LLC Test Group: SRIVT00.01L2

Range Test Results							
Vehicle ID	Trans	(check one)	(check one)	City Range	System AC (Wh/mi)	System DC (Wh/mi)	Vehicle DC (Wh/mi)
		<u>      </u> TW <u>  X  </u> ETW	<u>      </u> DPA <u>      </u> RLHP Or dyno coeff.				
R1S284XR22	Auto	7000 lbs.	a: -8.38 lbf b: 0.2232 lbf/mph c: 0.02377 lbf/mph <sup>2</sup>	405.25	263.84	227.89	227.89
				Hwy. Range	System AC (Wh/mi)	System DC (Wh/mi)	Vehicle DC (Wh/mi)
				339.85	314.61	271.74	271.74

Battery Test Results: PASS Specific Energy: Wh/kg 130

Remarks:

Date Issued: 04/10/2024 Revisions:

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Processed By: \_\_\_\_\_ Date: \_\_\_\_\_ Reviewed by: \_\_\_\_\_ Date: \_\_\_\_\_