



RIVIAN AUTOMOTIVE, LLC

Application for Certification - Part 1

2025 Model Year

EPA Manufacturer Code: RIV

Test Group: SRIVT00.0193

Durability Group: N.A.

Evaporative Family: N.A.

Test Group Description:	Battery Electric Vehicle
Applicable Standards:	U.S. EPA: Tier 3 Bin 0 MDPV CA: ZEV MDV
Carlines Covered:	Rivian R1T Tri Max (22in) Rivian R1S Tri Max (22in) Rivian R1T All-Terrain Tri Max (20in) Rivian R1S All-Terrain Tri Max (20in)
Document Date:	07/30/2024

For Questions, Contact:

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14600 Myford Road
Irvine, CA 92606

Mr. Tristin Rojeck
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 SRIVT00.0193.

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:	SRIVT00.0193
Evaporative Family:	N/A
Federal Standard:	Tier 3 Bin 0
California Standard:	ZEV

Test Group Description:

1 - 1 Battery Pack
9 - 9 Module
3 - Ascent Tri Motor

Vehicles Covered by this certificate:

- Rivian R1T Tri Max (22in)
- Rivian R1S Tri Max (22in)
- Rivian R1T All-Terrain Tri Max (20in)
- Rivian R1S All-Terrain Tri Max (20in)

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

Sepehr Zakeresfahani
Sr. Manager, Homologation and Certification
(Whole Vehicle)



08/01/2024





14600 Myford Road
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Mr. Tristin Rojeck
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Office of Mobile Sources
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2000 Traverwood, Ann Arbor, MI 48105

Subject: MY 2025 Rivian Medium-Duty Vehicle OBD letter for issuance of Certificate of Conformity for Test Group SRIVT00.0193.

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:	SRIVT00.0193
Evaporative Family:	N/A
Federal Standard:	Tier 3 Bin 0
California Standard:	ZEV

Test Group Description:

1 - 1 Battery Pack
9 - 9 Module
3 - Ascent Tri Motor

Vehicles Covered by this certificate:

- Rivian R1T Tri Max (22in)
- Rivian R1S Tri Max (22in)
- Rivian R1T All-Terrain Tri Max (20in)
- Rivian R1S All-Terrain Tri Max (20in)

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08/01/2024





14600 Myford Road
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Mr. Tristin Rojeck
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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 SRIVT00.0193.

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:	SRIVT00.0193
Evaporative Family:	N/A
Federal Standard:	Tier 3 Bin 0
California Standard:	ZEV

Test Group Description:

1 - Battery Pack
9 - 9 Module
3 - Ascent Tri Motor

Vehicles Covered by this certificate:

- Rivian R1T Tri Max (22in)
- Rivian R1S Tri Max (22in)
- Rivian R1T All-Terrain Tri Max (20in)
- Rivian R1S All-Terrain Tri Max (20in)

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

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Sr. Manager, Homologation and Certification
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2024/08/01





14600 Myford Road
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Mr. Steven Hada
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Air Resources Board Laboratory
9528 Telstar Avenue, El Monte, CA 91731

Subject: MY 2025 Rivian Medium-Duty Vehicles Initial Application for issuance of an Executive Order for Test Group SRIVT00.0193.

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:	SRIVT00.0193
Evaporative Family:	N/A
Federal Standard:	Tier 3 Bin 0
California Standard:	ZEV

Test Group Description:

1 - 1 Battery Pack
9 - 9 Module
3 - Ascent Tri Motor

Vehicles Covered by this certificate:

- Rivian R1T Tri Max (22in)
- Rivian R1S Tri Max (22in)
- Rivian R1T All-Terrain Tri Max (20in)
- Rivian R1S All-Terrain Tri Max (20in)

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

Sepehr Zakeresfahani
Sr. Manager, Homologation and Certification
(Whole Vehicle)


08/01/2024



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01.00.00 Communications

01.01.00 Mailing Information

Rivian Automotive, LLC
14600 Myford Road
Irvine, CA 92606
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

02.00.00 Confidential Information

02.01.00 Statement of confidentiality

02.02.00 Test vehicle selection

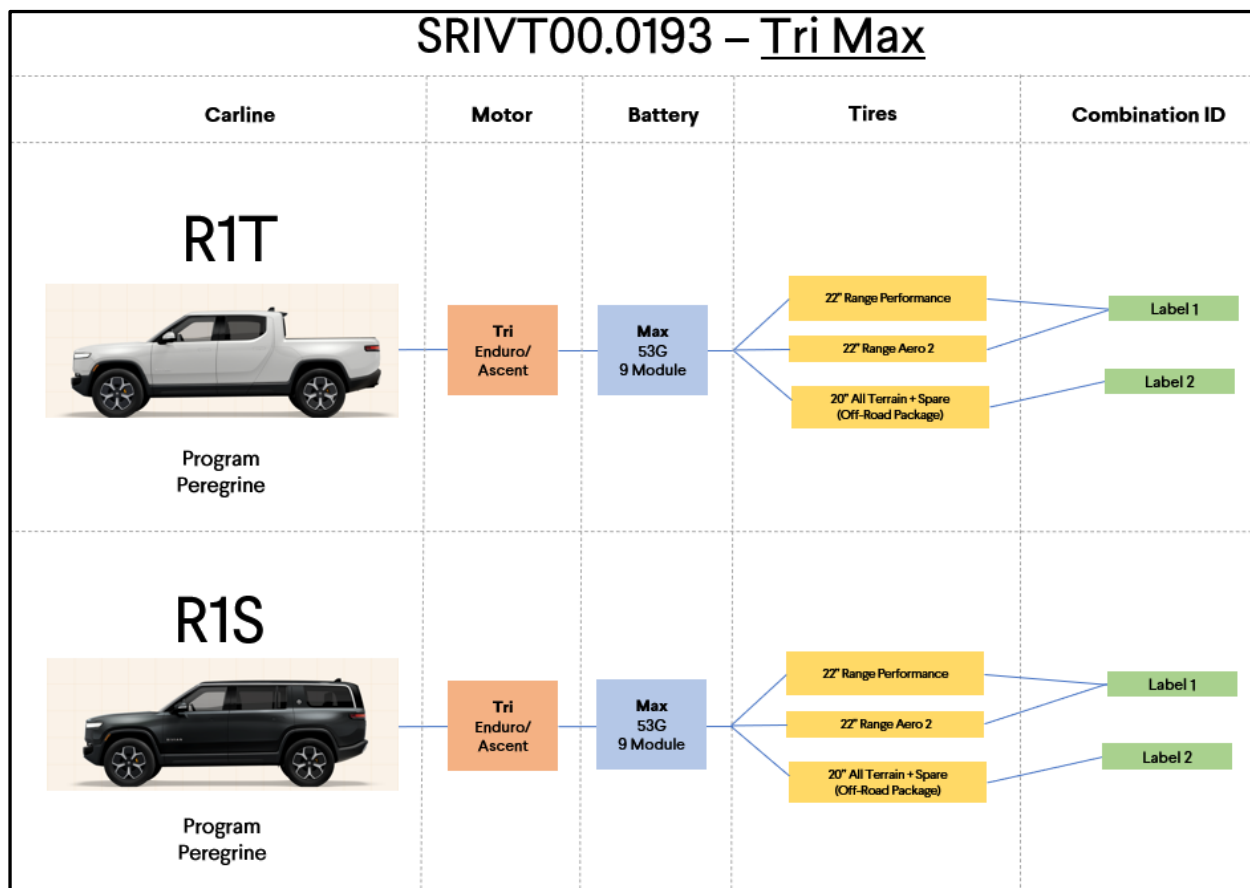
02.03.00 Projected annual model-year sales

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	Ride Height	Drive Mode	A [lbf]	B [lbf/mph]	C [lbf/mph ²]	Test Weight [lbs]	Tire Size
R1S Tri Max (22in)	Auto RH	Conserve	45.62	0.2727	0.02222	7,000	275/50R22
	Standard RH	All-Purpose	46.02	0.1417	0.02689		
R1S All-Terrain Tri Max (20in)	Auto RH	Conserve	53.38	0.4042	0.02364	7,500	275/65R20
	Standard RH	All-Purpose	53.23	0.4740	0.02089		
R1T Tri Max (22in)	Auto RH	Conserve	50.73	-0.01494	0.02473	7,000	275/50R22
	Standard RH	All-Purpose	50.99	-0.03820	0.02484		
R1T All-Terrain Tri Max (20in)	Auto RH	Conserve	57.27	0.5062	0.02077	7,500	275/65R20
	Standard RH	All-Purpose	57.34	0.4310	0.02406		

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
R1T Maintenance Schedule										
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		-	75W
Density @ 15C, Relative	ASTM D1298	g/ml	0.852
Appearance Visual		-	clear
Viscosity, Kinematic 100°C	ASTM D445	mm ² /s	6.3
Viscosity, Kinematic 40°C	ASTM D445	mm ² /s	32
Viscosity Index		-	154
Viscosity, Brookfield @ -40°C	ASTM D2983	mPa.s (cP)	10000
Pour Point	ASTM D97	°C	-51
Flash Point, COC	ASTM D92	°C	226

Coolant: L228

Performance of L228 According to ASTM D3306

Table 1 – ASTM D3306 Results

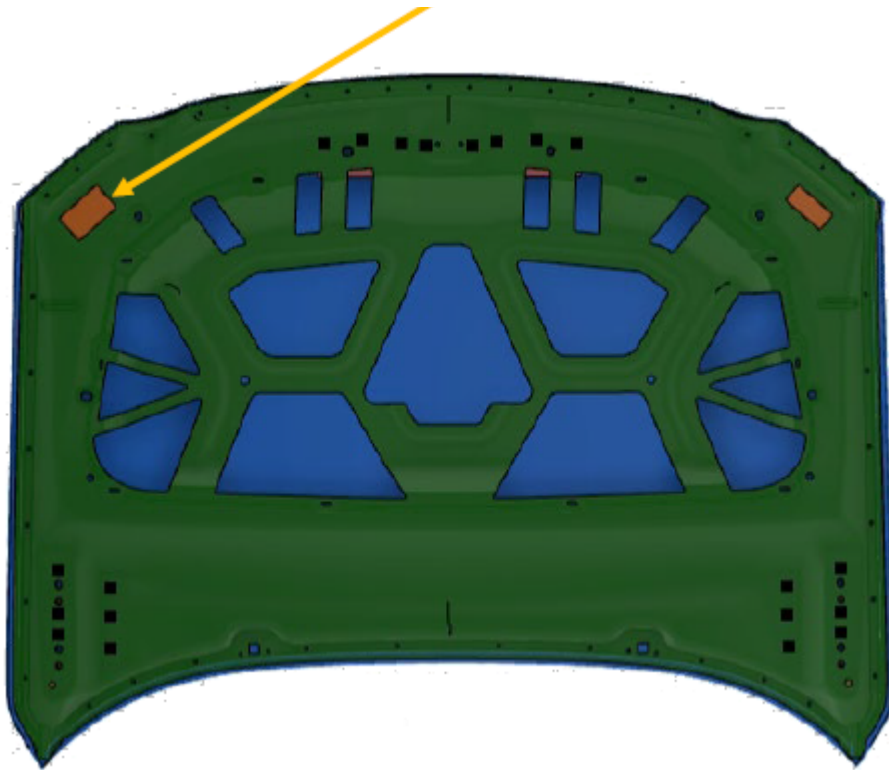
Item		ASTM D3306 Type I	CCI L228
Color		Distinctive	Yellow
Relative Density 15.5/15.5°C		1.110 ~ 1.145	1.128
Freezing Point °C	50 vol% in DI water	-36.4 max.	-37
Boiling Point °C	50 vol% in DI water	108 min.	109
Ash content mass%		5 max.	1.7
pH	50 vol% in DI water	7.5 ~ 11.0	7.6
Chloride μg/g		25 max.	<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 ⁽¹⁾ mg/Specimen	Copper	10 max.
		Solder	30 max.
		Brass	10 max.
		Steel	10 max.
		Cast Iron	10 max.
Simulated Service Test	Weight Loss ⁽¹⁾ mg/Specimen	Aluminum	30 max.
		Copper	20 max.
		Solder	60 max.
		Brass	20 max.
		Steel	20 max.
Corrosion of Cast Aluminum Alloys at Heat-Rejecting Surfaces	mg/cm ² /week	Cast Iron	20 max.
		Aluminum	60 max.
		Steel	20 max.
		Solder	60 max.
		Copper	20 max.
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 VEI labels (MY2025 Sample Label):


RIVIAN

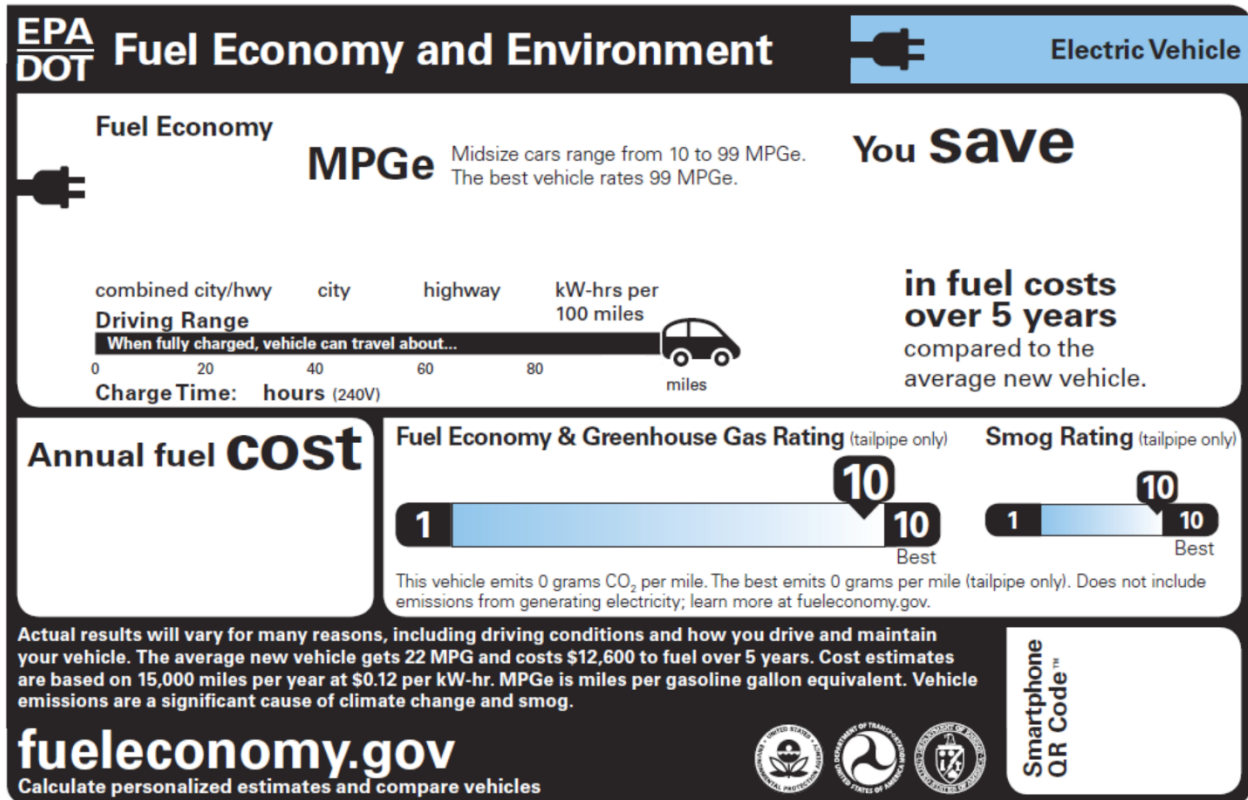
RIVIAN AUTOMOTIVE, LLC
VEHICLE EMISSION CONTROL INFORMATION



CONFORMS TO REGULATIONS: 2025 MY	MOTOR: ELECTRIC MOTOR
TEST GROUP: SRIVT00.0193	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 RÉGLEMENT SUR
LES ÉMISSIONS DES VÉHICULES ROUTIERS ET DE LEURS MOTEURS.

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



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 Max Pack is 381.6 Ah based on a constant current C/5 discharge rate. Max: 140.0 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 through 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 station.
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 Performance Tri Max (22in) - Conserve

EPA EV Multicycle Calculator (SAE J1634 Oct 2012)

Manufacturer: RIVIAN
 Carline: R1S
 Model Year: 2025
 Vehicle: R1S 351X 22" Range
 Test Number:
 Comments: CONSERVE

D.Good March 8, 2016

Test Date: 6/21/2024

Cycle	Energy (Wh)	Distance (mi)	ECdc_cyc	Kuwt	Kwgt	Recharge AC WattHrs
UDDS1	2003.34	7.463	268.43	67.11	3.85	163410.30
UDDS2	1776.33	7.465	237.95	59.49	78.18	
UDDS3	1719.92	7.432	231.43	57.86	76.04	
UDDS4	1723.82	7.442	231.63	57.91	76.10	
HWY1	2829.76	10.260	275.80	137.90		
HWY2	2700.00	10.230	263.94	131.97		
SS1	11177.76	332.187	336.49			
SS2	15104.62	44.487	339.53			
TOTAL	139635.55	426.966				

K-Factors	UDDS1	UDDS2	UDDS3	UDDS4	HWY1	HWY2
Unweighted	0.250	0.250	0.250	0.250	0.500	0.500
Weighted	0.014	0.329	0.329	0.329	NA	NA

Results	Range (mi)	AC Wh/mi	MPGe	kWh/100mi	EPA version kWh/100mi
UDDSu	576.15	283.62			
UDDSw	596.30	274.04	122.9933	27.4039	27.40393
HWY	517.42	315.82	106.7220	31.5821	31.58205

MCT Results	whdc/mi	mi/kwhdc	mi/kwhac
UDDS	234.1691	4.2704	3.6491
HFEDS	269.8714	3.7055	3.1664

Range	0.7 Adj	Adj	MPGe	MPGe
Factor	0.70000	0.70550	0.70000	0.70550
City	417.41	420.69	86.0953	86.7713
Hwy	362.19	365.03	74.7054	75.2920
Combined	392.56	395.64	80.57	81.20

R1S Performance Tri Max (22in) – All-Purpose

EPA EV Multicycle Calculator (SAE J1634 Oct 2012)

Manufacturer: **RIVIAN**

Carline: **R1S**

Model Year: **2025**

Vehicle: **R1S 351X 22" Range**

Test Number

Comments: **ALL PURPOSE**

D.Good March 8, 2016

Test Date: **7/11/2024**

Cycle	Energy (Wh)	Distance (mi)	ECdc_cyc	Kuwt	Kwgt	Recharge AC WattHrs
UDDS1	2335.09	7.433	314.13	78.53	5.25	163748.79
UDDS2	2099.79	7.438	282.29	70.57	92.52	
UDDS3	1973.75	7.448	264.99	66.25	86.85	
UDDS4	1993.89	7.453	267.52	66.88	87.68	
HWY1	3369.80	10.243	329.00	164.50		
HWY2	3135.57	10.256	305.74	152.87		
SS1	114604.44	294.089	389.69			
SS2	10085.58	24.632	409.44			
TOTAL	139597.89	368.994				

K-Factors	UDDS1	UDDS2	UDDS3	UDDS4	HWY1	HWY2
Unweighted	0.250	0.250	0.250	0.250	0.500	0.500
Weighted	0.017	0.328	0.328	0.328	NA	NA

Results	Range (mi)	AC Wh/mi	MPGe	kWh/100mi	EPA version kWh/100mi
UDDSu	494.62	331.06			
UDDSw	512.64	319.42	105.5194	31.9420	31.94201
HWY	439.86	372.27	90.5386	37.2272	37.22723

MCT Results	whdc/mi	mi/kwhdc	mi/kwhac
UDDS	272.310	3.672	3.131
HFEDS	317.367	3.151	2.686

Range	0.7 Adj	Adj	MPGe	MPGe
Factor	0.70000	0.72120	0.70000	0.72120
City	358.85	369.72	73.8636	76.1000
Hwy	307.90	317.23	63.3770	65.2960
Combined	335.92	346.10	68.74	70.83

R1T All-Terrain Performance Tri Max (20in) - Conserve

Test results pending.

R1T All-Terrain Performance Tri Max (20in) – All-Purpose

EPA EV Multicycle Calculator (SAE J1634 Oct 2012)

Manufacturer: RIVIAN
Carline: R1T
Model Year: 2025
Vehicle: R1T 358X 20" AT
Test Number:
Comments: ALL PURPOSE

D.Good March 8, 2016

Test Date: 7/3/2024

Cycle	Energy (Wh)	Distance (mi)	ECdc_cyc	Kuwgt	Kwgt	Recharge AC WattHrs
UDDS1	2672.62	7.463	358.12	89.53	6.87	163443.200
UDDS2	2388.47	7.458	320.26	80.06	104.70	
UDDS3	2285.36	7.382	309.59	77.40	101.22	
UDDS4	2278.74	7.396	308.10	77.03	100.73	
HWY1	3787.81	10.261	369.15	184.57		
HWY2	3528.15	10.193	346.13	173.07		
SS1	113225.04	261.853	432.40			
SS2	9134.19	20.257	450.92			
TOTAL	139300.38	332.263				

K-Factors	UDDS1	UDDS2	UDDS3	UDDS4	HWY1	HWY2
Unweighted	0.250	0.250	0.250	0.250	0.500	0.500
Weighted	0.019	0.327	0.327	0.327	NA	NA

Results	Range (mi)	AC Wh/mi	EPA version	
			MPGe	kWh/100mi
UDDSu	429.92	380.17		
UDDSw	444.31	367.86	91.6248	36.7859
HWY	389.50	419.62	80.3217	41.9625

MCT Results	whdc/mi	mi/kwhdc	mi/kwhac
UDDS	313.521	3.190	2.718
HFEDS	357.640	2.796	2.383

Range	0.7 Adj		MPGe	MPGe
	Adj			
Factor	0.70000	0.73500	0.70000	0.73500
City	311.02	326.57	64.1374	67.3443
Hwy	272.65	286.28	56.2252	59.0365
Combined	293.75	308.44	60.32	63.33

US EPA Fee Form

[Help and EPA Instructions](#)

* Required Field

General Information

Date: 07/22/2024

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 *

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 *

SRIVT00.0193

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

Test Group	SRIVT00.0193	Evaporative/Refueling Family	--
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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	700 - R1T All-Terrain Tri Max (20in)	Federal	4-Wheel Drive	Automatic	1	No
Rivian Automotive LLC	1 - Rivian	700 - R1T All-Terrain Tri Max (20in)	California + CAA Section 177 states	4-Wheel Drive	Automatic	1	No
Rivian Automotive LLC	1 - Rivian	702 - R1T Tri Max (22in)	Federal	4-Wheel Drive	Automatic	1	No
Rivian Automotive LLC	1 - Rivian	500 - R1S All-Terrain Tri Max (20in)	Federal	4-Wheel Drive	Automatic	1	No
Rivian Automotive LLC	1 - Rivian	502 - R1S Tri Max (22in)	Federal	4-Wheel Drive	Automatic	1	No
Rivian Automotive LLC	1 - Rivian	702 - R1T Tri Max (22in)	California + CAA Section 177 states	4-Wheel Drive	Automatic	1	No
Rivian Automotive LLC	1 - Rivian	500 - R1S All-Terrain Tri Max (20in)	California + CAA Section 177 states	4-Wheel Drive	Automatic	1	No
Rivian Automotive LLC	1 - Rivian	502 - R1S Tri Max (22in)	California + CAA Section 177 states	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	SRIVT00.0193	Evaporative/Refueling Family	--
Hybrid Electric Vehicle And Fuel Cell Information			
Rechargeable Energy Storage System	Battery(s)	Rechargeable Energy Storage System, if Other	--
Battery Type	Lithium Ion	Number of Battery Packs	1
Total Voltage of Battery Packs	392	Battery Energy Capacity	382
Battery Specific Energy	190	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)	3		
Motor/Generator Type 1	AC Permanent Magnet	Rated Motor/Generator Power	233
Motor/Generator Type 2	AC Permanent Magnet	Rated Motor/Generator Power	201
Motor/Generator Type 3	AC Permanent Magnet	Rated Motor/Generator Power	201
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 Drive Mode and Conserve Drive Mode.		

Certification Summary Information Report

Test Group		SRIVT00.0193			Evaporative/Refueling Family			--
Dynamometer Coefficients:								
		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	45.62	0.2727	0.02222	-8.16	0.2842	0.02125	15.3	
Cold CO	50.18	0.3	0.02444	-11.65	-0.02747	0.02485	N/A	
US06	45.62	0.2727	0.02222	-8.16	0.2842	0.02125	N/A	
Emission Control Device Comments	Battery Electric Vehicle							
Manufacturer Test Vehicle Comments	R1S Tri Max (22in) - Conserve Drive Mode FDU Axle Ratio: 11.0:1 RDU Axle Ratio: 11.7:1 FDU N/V: 120.0 RDU N/V: 113.1							

Certification Summary Information Report

Test Group	SRIVT00.0193	Evaporative/Refueling Family	--
Test #	SRIV10087219	Test Procedure	2 - CVS 75 and later (w/o can. load)
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	06/28/2024	Fuel	Electricity
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	MDPV (Federal Tier 2, GVWR 8501-10000)	DF Type	EPA Assigned
Verify Test Lab ID	FEV Michigan		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4243	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	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)	2.79	--
DT-EER (Drive Trace Energy Economy Rating)	1.93	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	4.47	--
MFR FE (Manufacturer Fuel Economy)	24.16	139.5074503
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 - Conserve Drive Mode, Tri Motor, Max Battery Pack, and 22" Sport Bright Wheels. Cycle 1: 268.96 Wh/mi, Cycle 2: 222.57 Wh/mi, Cycle 3: 260.40 Wh/mi, Cycle 4: 217.77 Wh/mi.

Certification Summary Information Report

Test Group	SRIVT00.0193	Evaporative/Refueling Family	--
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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

Test Group	SRIVT00.0193	Evaporative/Refueling Family	--
Test #	SRIV10087217	Test Procedure	3 - HWFE
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	06/28/2024	Fuel	N/A
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	EPA Assigned
Verify Test Lab ID	FEV Michigan		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4243	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	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)	3.65	--
DT-EER (Drive Trace Energy Economy Rating)	0.37	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	4.26	--
MFR FE (Manufacturer Fuel Economy)	26.9	125.2973978
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 - Conserve Drive Mode, Tri Motor, Max Battery Pack, and 22" Sport Bright Wheels. Cycle 1: 269.00 Wh/mi

Certification Summary Information Report

Test Group	SRIVT00.0193	Evaporative/Refueling Family	--
Test #	SRIV10087220	Test Procedure	90 - US06
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	06/27/2024	Fuel	N/A
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	EPA Assigned
Verify Test Lab ID	FEV Michigan		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4227	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	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)	-0.92	--
DT-EER (Drive Trace Energy Economy Rating)	-0.95	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-2.08	--
MFR FE (Manufacturer Fuel Economy)	37.16	90.7023681
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 Conserve Drive Mode, Tri Motor, Max Battery Pack, and 22" Sport Bright Wheels. Cycle 1 (City1): 360.14 Wh/mi, Cycle 2 (HWY): 367.33 Wh/mi, Cycle 3 (City2): 455.29 Wh/mi

Certification Summary Information Report

Test Group	SRIVT00.0193	Evaporative/Refueling Family	--
Test #	SRIV10087218	Test Procedure	95 - SC03
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	06/28/2024	Fuel	N/A
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	EPA Assigned
Verify Test Lab ID	FEV Michigan		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4269	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	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)	2.04	--
DT-EER (Drive Trace Energy Economy Rating)	0.86	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	1.52	--
MFR FE (Manufacturer Fuel Economy)	33.77	99.8075215
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 - Conserve Drive Mode, Tri Motor, Max Battery Pack, and 22" Sport Bright Wheels. Cycle 1: 337.71 Wh/mi

Certification Summary Information Report

Test Group	SRIVT00.0193	Evaporative/Refueling Family	--
Test #	SRIV10087216	Test Procedure	77 - Multi-Cycle Test (MCT)
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	06/21/2024	Fuel	N/A
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	EPA Assigned
Verify Test Lab ID	FEV Michigan		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	3295	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	Yes

PHEV/EV Charge Depleting Test Information

Recharge Event Voltage	240	Recharge Event Energy (kiloWatt-hours)	163.41
Charge Depleting Range (Calculated miles)	596.3	Charge Depleting Range (Actual miles)	596.3
Charge Depleting Range Highway (Calculated miles)	517.42	Derived 5-Cycle Coefficient Model Year	--
All Electric Range Unadjusted (miles)	--	Equivalent All Electric Range (miles)	596.3
Number of Charge Depleting Bags/Phases Conducted	8	Transition Bag/Phase Number	--

Charge Depleting Bag/Phase #1

Test Result/Emission Name	Unrounded Test Result
Actual Distance Driven (miles)	7.463
Carbon-Related Exhaust Emissions	0
Drive Trace Absolute Speed Change Rating	-0.33
Drive Trace Energy Economy Rating	-0.75
Drive Trace Inertia Work Ratio Rating	-0.44
Integrated DC KW-HRS	2.003
Manufacturer Fuel Economy	26.84

Charge Depleting Bag/Phase #2

Certification Summary Information Report

Test Group	SRIVT00.0193	Evaporative/Refueling Family	--																
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Test Result/Emission Name	Unrounded Test Result																		
Actual Distance Driven (miles)	10.26																		
Carbon-Related Exhaust Emissions	0																		
Drive Trace Absolute Speed Change Rating	-0.97																		
Drive Trace Energy Economy Rating	-0.34																		
Drive Trace Inertia Work Ratio Rating	-1.22																		
Integrated DC KW-HRS	2.83																		
Manufacturer Fuel Economy	27.58																		
Charge Depleting Bag/Phase #3																			
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Test Result/Emission Name	Unrounded Test Result																		
Actual Distance Driven (miles)	7.465																		
Carbon-Related Exhaust Emissions	0																		
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Drive Trace Energy Economy Rating	-0.51																		
Drive Trace Inertia Work Ratio Rating	-0.07																		
Integrated DC KW-HRS	1.776																		
Manufacturer Fuel Economy	23.79																		
Charge Depleting Bag/Phase #4																			
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Test Result/Emission Name	Unrounded Test Result																		
Actual Distance Driven (miles)	332.187																		
Carbon-Related Exhaust Emissions	0																		
Drive Trace Absolute Speed Change Rating	74.63																		
Drive Trace Energy Economy Rating	-1.59																		
Drive Trace Inertia Work Ratio Rating	99.99																		
Integrated DC KW-HRS	111.778																		
Manufacturer Fuel Economy	33.65																		
Charge Depleting Bag/Phase #5																			
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Test Result/Emission Name	Unrounded Test Result																		
Actual Distance Driven (miles)	7.432																		
Carbon-Related Exhaust Emissions	0																		
Drive Trace Absolute Speed Change Rating	2.41																		
Drive Trace Energy Economy Rating	1.77																		
Drive Trace Inertia Work Ratio Rating	3.73																		
Integrated DC KW-HRS	1.72																		
Manufacturer Fuel Economy	23.14																		
Charge Depleting Bag/Phase #6																			

Certification Summary Information Report

Test Group	SRIVT00.0193	Evaporative/Refueling Family	--
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Test Result/Emission Name	Unrounded Test Result
Actual Distance Driven (miles)	10.23
Carbon-Related Exhaust Emissions	0
Drive Trace Absolute Speed Change Rating	6.27
Drive Trace Energy Economy Rating	2.46
Drive Trace Inertia Work Ratio Rating	6.61
Integrated DC KW-HRS	2.7
Manufacturer Fuel Economy	26.39

Charge Depleting Bag/Phase #7

Test Result/Emission Name	Unrounded Test Result
Actual Distance Driven (miles)	7.442
Carbon-Related Exhaust Emissions	0
Drive Trace Absolute Speed Change Rating	2.22
Drive Trace Energy Economy Rating	1.59
Drive Trace Inertia Work Ratio Rating	3.22
Integrated DC KW-HRS	1.724
Manufacturer Fuel Economy	23.16

Charge Depleting Bag/Phase #8

Test Result/Emission Name	Unrounded Test Result
Actual Distance Driven (miles)	44.487
Carbon-Related Exhaust Emissions	0
Drive Trace Absolute Speed Change Rating	99.99
Drive Trace Energy Economy Rating	-0.24
Drive Trace Inertia Work Ratio Rating	94.11
Integrated DC KW-HRS	15.105
Manufacturer Fuel Economy	33.95

Manufacturer Test Comments

R1S - Conserve Drive Mode, Tri Motor, Max Battery Pack, and 22" Sport Bright wheels. UDDS1: 268.43 Wh/mi, UDDS2: 237.95 Wh/mi, UDDS3: 231.43 Wh/mi, UDDS4: 231.63 Wh/mi. UDDS1 Energy: 2003.34 Wh HWY1: 275.80 Wh/mi, HWY2: 263.94 Wh/mi MCT Energy: 139635.55 Wh

Certification Summary Information Report

Test Group	SRIVT00.0193	Evaporative/Refueling Family	--
Test #	SRIV10087221	Test Procedure	86 - Charge Depleting 20 Degree F FTP
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	07/02/2024	Fuel	N/A
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	EPA Assigned
Verify Test Lab ID	FEV Michigan		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4276	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	Yes

PHEV/EV Charge Depleting Test Information

Recharge Event Voltage	240	Recharge Event Energy (kiloWatt-hours)	163.41
Charge Depleting Range (Calculated miles)	14.9	Charge Depleting Range (Actual miles)	14.9
Charge Depleting Range Highway (Calculated miles)	--	Derived 5-Cycle Coefficient Model Year	--
All Electric Range Unadjusted (miles)	--	Equivalent All Electric Range (miles)	14.9
Number of Charge Depleting Bags/Phases Conducted	4	Transition Bag/Phase Number	--

Charge Depleting Bag/Phase #1

Test Result/Emission Name	Unrounded Test Result
Actual Distance Driven (miles)	3.59
Carbon-Related Exhaust Emissions	0
Drive Trace Absolute Speed Change Rating	-0.65
Drive Trace Energy Economy Rating	-0.39
Drive Trace Inertia Work Ratio Rating	-1.35
Integrated DC KW-HRS	1.859
Manufacturer Fuel Economy	51.8

Charge Depleting Bag/Phase #2

Certification Summary Information Report

Test Group	SRIVT00.0193	Evaporative/Refueling Family	--																
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Test Result/Emission Name	Unrounded Test Result																		
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Manufacturer Fuel Economy	39.78																		
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Test Result/Emission Name	Unrounded Test Result																		
Actual Distance Driven (miles)	3.836																		
Carbon-Related Exhaust Emissions	0																		
Drive Trace Absolute Speed Change Rating	-0.35																		
Drive Trace Energy Economy Rating	-0.49																		
Drive Trace Inertia Work Ratio Rating	-0.26																		
Integrated DC KW-HRS	1.34																		
Manufacturer Fuel Economy	34.94																		
Manufacturer Test Comments	R1S - Conserve Drive Mode, Tri Motor, Max Battery Pack, and 22" Sport Bright Wheels. Cycle 1: 517.98 Wh/mi, Cycle 2: 410.80 Wh/mi, Cycle 3: 397.78 Wh/mi, Cycle 4: 349.45 Wh/mi,																		

Certification Summary Information Report

Test Group	SRIVT00.0193	Evaporative/Refueling Family	--
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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)	
City/Highway/Evap	45.62	0.2727	0.02222	-8.16	0.2842	0.02125	15.3
Cold CO	50.18	0.3	0.02444	-11.65	-0.02747	0.02485	N/A
US06	45.62	0.2727	0.02222	-8.16	0.2842	0.02125	N/A

Emission Control Device Comments

Battery Electric Vehicle

Manufacturer Test Vehicle Comments

R1S Tri Max (22in) - All Purpose Drive Mode FDU Axle Ratio: 11.0:1 RDU Axle Ratio: 11.7:1 FDU N/V: 120.0 RDU N/V: 113.1

Certification Summary Information Report

Test Group	SRIVT00.0193	Evaporative/Refueling Family	--
Test #	SRIV10087223	Test Procedure	2 - CVS 75 and later (w/o can. load)
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	07/16/2024	Fuel	Electricity
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	MDPV (Federal Tier 2, GVWR 8501-10000)	DF Type	EPA Assigned
Verify Test Lab ID	FEV Michigan		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4794	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	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)	1.17	--
DT-EER (Drive Trace Energy Economy Rating)	0.75	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	1.92	--
MFR FE (Manufacturer Fuel Economy)	28.82	116.9500347
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 - All Purpose Drive Mode, Tri Motor, Max Battery Pack, and 22" Sport Bright Wheels. Cycle 1: 323.82 Wh/mi, Cycle 2: 265.49 Wh/mi, Cycle 3: 309.28 Wh/mi, Cycle 4: 257.94 Wh/mi.

Certification Summary Information Report

Test Group	SRIVT00.0193	Evaporative/Refueling Family	--
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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

Test Group	SRIVT00.0193	Evaporative/Refueling Family	--
Test #	SRIV10087224	Test Procedure	3 - HWFE
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	07/16/2024	Fuel	N/A
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	EPA Assigned
Verify Test Lab ID	FEV Michigan		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4794	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	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)	3.91	--
DT-EER (Drive Trace Energy Economy Rating)	-0.16	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	4.81	--
MFR FE (Manufacturer Fuel Economy)	31.91	105.6251959
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 - All Purpose Drive Mode, Tri Motor, Max Battery Pack, and 22" Sport Bright Wheels. Cycle 1: 319.06 Wh/mi

Certification Summary Information Report

Test Group	SRIVT00.0193	Evaporative/Refueling Family	--
Test #	SRIV10087225	Test Procedure	90 - US06
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	07/18/2024	Fuel	N/A
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	EPA Assigned
Verify Test Lab ID	FEV Michigan		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4834	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	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)	0.09	--
DT-EER (Drive Trace Energy Economy Rating)	-0.63	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-0.15	--
MFR FE (Manufacturer Fuel Economy)	41.46	81.2952243
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 All Purpose Drive Mode, Tri Motor, Max Battery Pack, and 22" Sport Bright Wheels. Cycle 1 (City1): 396.19 Wh/mi, Cycle 2 (HWY): 415.69 Wh/mi, Cycle 3 (City2): 448.65 Wh/mi

Certification Summary Information Report

Test Group	SRIVT00.0193	Evaporative/Refueling Family	--
Test #	SRIV10087226	Test Procedure	95 - SC03
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	07/18/2024	Fuel	N/A
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	EPA Assigned
Verify Test Lab ID	FEV Michigan		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4850	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	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)	1.34	--
DT-EER (Drive Trace Energy Economy Rating)	0.68	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	1.33	--
MFR FE (Manufacturer Fuel Economy)	37.18	90.6535772
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 - All Purpose Drive Mode, Tri Motor, Max Battery Pack, and 22" Sport Bright Wheels. Cycle 1: 371.83 Wh/mi

Certification Summary Information Report

Test Group	SRIVT00.0193	Evaporative/Refueling Family	--
Test #	SRIV10087222	Test Procedure	77 - Multi-Cycle Test (MCT)
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	07/11/2024	Fuel	N/A
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	EPA Assigned
Verify Test Lab ID	FEV Michigan		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4298	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	Yes

PHEV/EV Charge Depleting Test Information

Recharge Event Voltage	240	Recharge Event Energy (kiloWatt-hours)	163.75
Charge Depleting Range (Calculated miles)	512.64	Charge Depleting Range (Actual miles)	512.64
Charge Depleting Range Highway (Calculated miles)	439.8	Derived 5-Cycle Coefficient Model Year	--
All Electric Range Unadjusted (miles)	--	Equivalent All Electric Range (miles)	512.64
Number of Charge Depleting Bags/Phases Conducted	8	Transition Bag/Phase Number	--

Charge Depleting Bag/Phase #1

Test Result/Emission Name	Unrounded Test Result
Actual Distance Driven (miles)	7.433
Carbon-Related Exhaust Emissions	0
Drive Trace Absolute Speed Change Rating	-0.63
Drive Trace Energy Economy Rating	-0.99
Drive Trace Inertia Work Ratio Rating	-1.01
Integrated DC KW-HRS	2.335
Manufacturer Fuel Economy	31.41

Charge Depleting Bag/Phase #2

Certification Summary Information Report

Test Group	SRIVT00.0193	Evaporative/Refueling Family	--																
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Test Result/Emission Name	Unrounded Test Result																		
Actual Distance Driven (miles)	10.243																		
Carbon-Related Exhaust Emissions	0																		
Drive Trace Absolute Speed Change Rating	1.16																		
Drive Trace Energy Economy Rating	-0.17																		
Drive Trace Inertia Work Ratio Rating	1.42																		
Integrated DC KW-HRS	3.37																		
Manufacturer Fuel Economy	32.9																		
Charge Depleting Bag/Phase #3																			
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Test Result/Emission Name	Unrounded Test Result																		
Actual Distance Driven (miles)	7.438																		
Carbon-Related Exhaust Emissions	0																		
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Manufacturer Fuel Economy	28.23																		
Charge Depleting Bag/Phase #4																			
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Test Result/Emission Name	Unrounded Test Result																		
Actual Distance Driven (miles)	294.089																		
Carbon-Related Exhaust Emissions	0																		
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Drive Trace Energy Economy Rating	-1.78																		
Drive Trace Inertia Work Ratio Rating	59.16																		
Integrated DC KW-HRS	114.604																		
Manufacturer Fuel Economy	38.97																		
Charge Depleting Bag/Phase #5																			
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Test Result/Emission Name	Unrounded Test Result																		
Actual Distance Driven (miles)	7.448																		
Carbon-Related Exhaust Emissions	0																		
Drive Trace Absolute Speed Change Rating	1.02																		
Drive Trace Energy Economy Rating	0.46																		
Drive Trace Inertia Work Ratio Rating	1.61																		
Integrated DC KW-HRS	1.974																		
Manufacturer Fuel Economy	26.5																		
Charge Depleting Bag/Phase #6																			

Certification Summary Information Report

Test Group	SRIVT00.0193	Evaporative/Refueling Family	--
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Test Result/Emission Name	Unrounded Test Result
Actual Distance Driven (miles)	10.256
Carbon-Related Exhaust Emissions	0
Drive Trace Absolute Speed Change Rating	1.79
Drive Trace Energy Economy Rating	0.14
Drive Trace Inertia Work Ratio Rating	2.57
Integrated DC KW-HRS	3.136
Manufacturer Fuel Economy	30.57

Charge Depleting Bag/Phase #7

Test Result/Emission Name	Unrounded Test Result
Actual Distance Driven (miles)	7.453
Carbon-Related Exhaust Emissions	0
Drive Trace Absolute Speed Change Rating	1.35
Drive Trace Energy Economy Rating	1.07
Drive Trace Inertia Work Ratio Rating	2.16
Integrated DC KW-HRS	1.994
Manufacturer Fuel Economy	26.75

Charge Depleting Bag/Phase #8

Test Result/Emission Name	Unrounded Test Result
Actual Distance Driven (miles)	24.632
Carbon-Related Exhaust Emissions	0
Drive Trace Absolute Speed Change Rating	99.99
Drive Trace Energy Economy Rating	-0.64
Drive Trace Inertia Work Ratio Rating	33.99
Integrated DC KW-HRS	10.086
Manufacturer Fuel Economy	40.94

Manufacturer Test Comments

R1S - All Purpose Drive Mode, Tri Motor, Max Battery Pack, and 22" Sport Bright wheels. UDDS1: 314.13 Wh/mi, UDDS2: 282.29 Wh/mi, UDDS3: 264.99 Wh/mi, UDDS4: 267.52 Wh/mi. UDDS1 Energy: 2335.09 Wh HWY1: 329.00 Wh/mi, HWY2: 305.74 Wh/mi MCT Energy: 139597.89 Wh

Certification Summary Information Report

Test Group	SRIVT00.0193	Evaporative/Refueling Family	--
Test #	SRIV10087227	Test Procedure	86 - Charge Depleting 20 Degree F FTP
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	07/17/2024	Fuel	N/A
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	EPA Assigned
Verify Test Lab ID	FEV Michigan		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4276	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	Yes

PHEV/EV Charge Depleting Test Information

Recharge Event Voltage	240	Recharge Event Energy (kiloWatt-hours)	163.41
Charge Depleting Range (Calculated miles)	14.9	Charge Depleting Range (Actual miles)	14.9
Charge Depleting Range Highway (Calculated miles)	--	Derived 5-Cycle Coefficient Model Year	--
All Electric Range Unadjusted (miles)	--	Equivalent All Electric Range (miles)	14.9
Number of Charge Depleting Bags/Phases Conducted	4	Transition Bag/Phase Number	--

Charge Depleting Bag/Phase #1

Test Result/Emission Name	Unrounded Test Result
Actual Distance Driven (miles)	3.59
Carbon-Related Exhaust Emissions	0
Drive Trace Absolute Speed Change Rating	0.4
Drive Trace Energy Economy Rating	-0.09
Drive Trace Inertia Work Ratio Rating	0.68
Integrated DC KW-HRS	2.09
Manufacturer Fuel Economy	58.23

Charge Depleting Bag/Phase #2

Certification Summary Information Report

Test Group	SRIVT00.0193	Evaporative/Refueling Family	--																
<table border="1"> <thead> <tr> <th>Test Result/Emission Name</th> <th>Unrounded Test Result</th> </tr> </thead> <tbody> <tr> <td>Actual Distance Driven (miles)</td> <td>3.86</td> </tr> <tr> <td>Carbon-Related Exhaust Emissions</td> <td>0</td> </tr> <tr> <td>Drive Trace Absolute Speed Change Rating</td> <td>0.71</td> </tr> <tr> <td>Drive Trace Energy Economy Rating</td> <td>0.16</td> </tr> <tr> <td>Drive Trace Inertia Work Ratio Rating</td> <td>1.19</td> </tr> <tr> <td>Integrated DC KW-HRS</td> <td>1.831</td> </tr> <tr> <td>Manufacturer Fuel Economy</td> <td>47.43</td> </tr> </tbody> </table>				Test Result/Emission Name	Unrounded Test Result	Actual Distance Driven (miles)	3.86	Carbon-Related Exhaust Emissions	0	Drive Trace Absolute Speed Change Rating	0.71	Drive Trace Energy Economy Rating	0.16	Drive Trace Inertia Work Ratio Rating	1.19	Integrated DC KW-HRS	1.831	Manufacturer Fuel Economy	47.43
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Charge Depleting Bag/Phase #3																			
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Test Result/Emission Name	Unrounded Test Result																		
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Drive Trace Energy Economy Rating	0.93																		
Drive Trace Inertia Work Ratio Rating	1.87																		
Integrated DC KW-HRS	1.651																		
Manufacturer Fuel Economy	45.97																		
Charge Depleting Bag/Phase #4																			
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Test Result/Emission Name	Unrounded Test Result																		
Actual Distance Driven (miles)	3.864																		
Carbon-Related Exhaust Emissions	0																		
Drive Trace Absolute Speed Change Rating	0.97																		
Drive Trace Energy Economy Rating	0.21																		
Drive Trace Inertia Work Ratio Rating	1.64																		
Integrated DC KW-HRS	1.529																		
Manufacturer Fuel Economy	39.56																		
Manufacturer Test Comments	R1S - All Purpose Drive Mode, Tri Motor, Max Battery Pack, and 22" Sport Bright Wheels. Cycle 1: 582.32 Wh/mi, Cycle 2: 474.26 Wh/mi, Cycle 3: 459.68 Wh/mi, Cycle 4: 395.60 Wh/mi,																		

Certification Summary Information Report

Test Group		SRIVT00.0193			Evaporative/Refueling Family			--
Dynamometer Coefficients:								
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	57.27	0.5062	0.02077	-12.35	0.2486	0.0214	17.9	
Cold CO	63	0.5568	0.02285	-22.79	0.2746	0.02198	N/A	
US06	57.27	0.5062	0.02077	-12.35	0.2486	0.0214	N/A	
Emission Control Device Comments	Battery Electric Vehicle							
Manufacturer Test Vehicle Comments	R1T All-Terrain Tri Max (20in) - All Purpose Drive Mode FDU Axle Ratio: 11.0:1 RDU Axle Ratio: 11.7:1 FDU N/V: 115.4 RDU N/V: 108.8							

Certification Summary Information Report

Test Group	SRIVT00.0193	Evaporative/Refueling Family	--
Test #	SRIV10087234	Test Procedure	2 - CVS 75 and later (w/o can. load)
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	07/14/2024	Fuel	Electricity
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	MDPV (Federal Tier 2, GVWR 8501-10000)	DF Type	EPA Assigned
Verify Test Lab ID	FEV Michigan		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4038	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	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)	-0.7	--
DT-EER (Drive Trace Energy Economy Rating)	-0.72	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-1.08	--
MFR FE (Manufacturer Fuel Economy)	33.11	101.7970402
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 R1T - All Purpose Drive Mode, Tri Motor, Max Battery Pack, and 20" All-Terrain Wheels. Cycle 1: 372.80 Wh/mi, Cycle 2: 307.49 Wh/mi, Cycle 3: 351.05 Wh/mi, Cycle 4: 297.33 Wh/mi.

Certification Summary Information Report

Test Group		SRIVT00.0193				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

Test Group	SRIVT00.0193	Evaporative/Refueling Family	--
Test #	SRIV10087235	Test Procedure	3 - HWFE
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	07/14/2024	Fuel	N/A
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	EPA Assigned
Verify Test Lab ID	FEV Michigan		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4038	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	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)	-0.49	--
DT-EER (Drive Trace Energy Economy Rating)	0.19	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-0.82	--
MFR FE (Manufacturer Fuel Economy)	35.86	93.9905187
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

R1T - All Purpose Drive Mode, Tri Motor, Max Battery Pack, and 20" All-Terrain Wheels. Cycle 1: 358.65 Wh/mi

Certification Summary Information Report

Test Group	SRIVT00.0193	Evaporative/Refueling Family	--
Test #	SRIV10087236	Test Procedure	90 - US06
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	07/13/2024	Fuel	N/A
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	EPA Assigned
Verify Test Lab ID	FEV Michigan		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4022	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	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)	-0.47	--
DT-EER (Drive Trace Energy Economy Rating)	-0.56	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-0.4	--
MFR FE (Manufacturer Fuel Economy)	46.21	72.9387578
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

R1T All Purpose Drive Mode, Tri Motor, Max Battery Pack, and 20" All-Terrain Wheels. Cycle 1 (City1): 447.70 Wh/mi, Cycle 2 (HWY): 459.04 Wh/mi, Cycle 3 (City2): 536.43 Wh/mi

Certification Summary Information Report

Test Group	SRIVT00.0193	Evaporative/Refueling Family	--
Test #	SRIV10087237	Test Procedure	95 - SC03
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	07/09/2024	Fuel	N/A
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	EPA Assigned
Verify Test Lab ID	FEV Michigan		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	3991	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	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)	0.03	--
DT-EER (Drive Trace Energy Economy Rating)	0.14	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-0.59	--
MFR FE (Manufacturer Fuel Economy)	42.68	78.9714152
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

R1T - All Purpose Drive Mode, Tri Motor, Max Battery Pack, and 20" All-Terrain Wheels. Cycle 1: 426.75 Wh/mi

Certification Summary Information Report

Test Group	SRIVT00.0193	Evaporative/Refueling Family	--
Test #	SRIV10087233	Test Procedure	77 - Multi-Cycle Test (MCT)
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	07/03/2024	Fuel	N/A
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	EPA Assigned
Verify Test Lab ID	FEV Michigan		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	3503	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	Yes
PHEV/EV Charge Depleting Test Information			
Recharge Event Voltage	240	Recharge Event Energy (kiloWatt-hours)	163.44
Charge Depleting Range (Calculated miles)	444.31	Charge Depleting Range (Actual miles)	444.31
Charge Depleting Range Highway (Calculated miles)	389.5	Derived 5-Cycle Coefficient Model Year	--
All Electric Range Unadjusted (miles)	--	Equivalent All Electric Range (miles)	444.31
Number of Charge Depleting Bags/Phases Conducted	8	Transition Bag/Phase Number	--
Charge Depleting Bag/Phase #1			
Test Result/Emission Name		Unrounded Test Result	
Actual Distance Driven (miles)		7.463	
Carbon-Related Exhaust Emissions		0	
Drive Trace Absolute Speed Change Rating		-0.41	
Drive Trace Energy Economy Rating		-0.76	
Drive Trace Inertia Work Ratio Rating		-0.57	
Integrated DC KW-HRS		2.673	
Manufacturer Fuel Economy		35.81	
Charge Depleting Bag/Phase #2			

Certification Summary Information Report

Test Group	SRIVT00.0193	Evaporative/Refueling Family	--																
<table border="1"> <thead> <tr> <th>Test Result/Emission Name</th> <th>Unrounded Test Result</th> </tr> </thead> <tbody> <tr> <td>Actual Distance Driven (miles)</td> <td>10.261</td> </tr> <tr> <td>Carbon-Related Exhaust Emissions</td> <td>0</td> </tr> <tr> <td>Drive Trace Absolute Speed Change Rating</td> <td>-0.05</td> </tr> <tr> <td>Drive Trace Energy Economy Rating</td> <td>-0.23</td> </tr> <tr> <td>Drive Trace Inertia Work Ratio Rating</td> <td>0.11</td> </tr> <tr> <td>Integrated DC KW-HRS</td> <td>3.788</td> </tr> <tr> <td>Manufacturer Fuel Economy</td> <td>36.91</td> </tr> </tbody> </table>				Test Result/Emission Name	Unrounded Test Result	Actual Distance Driven (miles)	10.261	Carbon-Related Exhaust Emissions	0	Drive Trace Absolute Speed Change Rating	-0.05	Drive Trace Energy Economy Rating	-0.23	Drive Trace Inertia Work Ratio Rating	0.11	Integrated DC KW-HRS	3.788	Manufacturer Fuel Economy	36.91
Test Result/Emission Name	Unrounded Test Result																		
Actual Distance Driven (miles)	10.261																		
Carbon-Related Exhaust Emissions	0																		
Drive Trace Absolute Speed Change Rating	-0.05																		
Drive Trace Energy Economy Rating	-0.23																		
Drive Trace Inertia Work Ratio Rating	0.11																		
Integrated DC KW-HRS	3.788																		
Manufacturer Fuel Economy	36.91																		
Charge Depleting Bag/Phase #3																			
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Test Result/Emission Name	Unrounded Test Result																		
Actual Distance Driven (miles)	7.458																		
Carbon-Related Exhaust Emissions	0																		
Drive Trace Absolute Speed Change Rating	0.07																		
Drive Trace Energy Economy Rating	-0.4																		
Drive Trace Inertia Work Ratio Rating	0.26																		
Integrated DC KW-HRS	2.388																		
Manufacturer Fuel Economy	32.02																		
Charge Depleting Bag/Phase #4																			
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Test Result/Emission Name	Unrounded Test Result																		
Actual Distance Driven (miles)	261.853																		
Carbon-Related Exhaust Emissions	0																		
Drive Trace Absolute Speed Change Rating	25.34																		
Drive Trace Energy Economy Rating	-0.14																		
Drive Trace Inertia Work Ratio Rating	50.63																		
Integrated DC KW-HRS	113.225																		
Manufacturer Fuel Economy	43.24																		
Charge Depleting Bag/Phase #5																			
<table border="1"> <thead> <tr> <th>Test Result/Emission Name</th> <th>Unrounded Test Result</th> </tr> </thead> <tbody> <tr> <td>Actual Distance Driven (miles)</td> <td>7.382</td> </tr> <tr> <td>Carbon-Related Exhaust Emissions</td> <td>0</td> </tr> <tr> <td>Drive Trace Absolute Speed Change Rating</td> <td>-1.3</td> </tr> <tr> <td>Drive Trace Energy Economy Rating</td> <td>-0.46</td> </tr> <tr> <td>Drive Trace Inertia Work Ratio Rating</td> <td>-1.62</td> </tr> <tr> <td>Integrated DC KW-HRS</td> <td>2.285</td> </tr> <tr> <td>Manufacturer Fuel Economy</td> <td>30.96</td> </tr> </tbody> </table>				Test Result/Emission Name	Unrounded Test Result	Actual Distance Driven (miles)	7.382	Carbon-Related Exhaust Emissions	0	Drive Trace Absolute Speed Change Rating	-1.3	Drive Trace Energy Economy Rating	-0.46	Drive Trace Inertia Work Ratio Rating	-1.62	Integrated DC KW-HRS	2.285	Manufacturer Fuel Economy	30.96
Test Result/Emission Name	Unrounded Test Result																		
Actual Distance Driven (miles)	7.382																		
Carbon-Related Exhaust Emissions	0																		
Drive Trace Absolute Speed Change Rating	-1.3																		
Drive Trace Energy Economy Rating	-0.46																		
Drive Trace Inertia Work Ratio Rating	-1.62																		
Integrated DC KW-HRS	2.285																		
Manufacturer Fuel Economy	30.96																		
Charge Depleting Bag/Phase #6																			

Certification Summary Information Report

Test Group	SRIVT00.0193	Evaporative/Refueling Family	--
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Test Result/Emission Name	Unrounded Test Result
Actual Distance Driven (miles)	10.193
Carbon-Related Exhaust Emissions	0
Drive Trace Absolute Speed Change Rating	-2.98
Drive Trace Energy Economy Rating	-1.27
Drive Trace Inertia Work Ratio Rating	-3.81
Integrated DC KW-HRS	3.528
Manufacturer Fuel Economy	34.61

Charge Depleting Bag/Phase #7

Test Result/Emission Name	Unrounded Test Result
Actual Distance Driven (miles)	7.396
Carbon-Related Exhaust Emissions	0
Drive Trace Absolute Speed Change Rating	-1.24
Drive Trace Energy Economy Rating	-0.05
Drive Trace Inertia Work Ratio Rating	-1.32
Integrated DC KW-HRS	2.279
Manufacturer Fuel Economy	30.81

Charge Depleting Bag/Phase #8

Test Result/Emission Name	Unrounded Test Result
Actual Distance Driven (miles)	20.257
Carbon-Related Exhaust Emissions	0
Drive Trace Absolute Speed Change Rating	12.4
Drive Trace Energy Economy Rating	-0.78
Drive Trace Inertia Work Ratio Rating	24.78
Integrated DC KW-HRS	9.134
Manufacturer Fuel Economy	45.09

Manufacturer Test Comments

R1T - All Purpose Drive Mode, Tri Motor, Max Battery Pack, and 20" All-Terrain Wheels. UDDS1: 358.13 Wh/mi, UDDS2: 320.24 Wh/mi, UDDS3: 309.59 Wh/mi, UDDS4: 308.10 Wh/mi. UDDS1 Energy: 2672.62 Wh HWY1: 369.13 Wh/mi, HWY2: 346.14 Wh/mi MCT Energy: 139300.36 Wh

Certification Summary Information Report

Test Group	SRIVT00.0193	Evaporative/Refueling Family	--
Test #	SRIV10087238	Test Procedure	86 - Charge Depleting 20 Degree F FTP
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	07/17/2024	Fuel	N/A
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	EPA Assigned
Verify Test Lab ID	FEV Michigan		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4089	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	Yes		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	Yes

PHEV/EV Charge Depleting Test Information

Recharge Event Voltage	240	Recharge Event Energy (kiloWatt-hours)	163.44
Charge Depleting Range (Calculated miles)	14.9	Charge Depleting Range (Actual miles)	14.9
Charge Depleting Range Highway (Calculated miles)	--	Derived 5-Cycle Coefficient Model Year	--
All Electric Range Unadjusted (miles)	--	Equivalent All Electric Range (miles)	14.9
Number of Charge Depleting Bags/Phases Conducted	4	Transition Bag/Phase Number	--

Charge Depleting Bag/Phase #1

Test Result/Emission Name	Unrounded Test Result
Actual Distance Driven (miles)	3.592
Carbon-Related Exhaust Emissions	0
Drive Trace Absolute Speed Change Rating	1.21
Drive Trace Energy Economy Rating	0.24
Drive Trace Inertia Work Ratio Rating	1.67
Integrated DC KW-HRS	2.221
Manufacturer Fuel Economy	61.83

Charge Depleting Bag/Phase #2

Certification Summary Information Report

Test Group	SRIVT00.0193	Evaporative/Refueling Family	--
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Test Result/Emission Name	Unrounded Test Result
Actual Distance Driven (miles)	3.864
Carbon-Related Exhaust Emissions	0
Drive Trace Absolute Speed Change Rating	0.53
Drive Trace Energy Economy Rating	-0.29
Drive Trace Inertia Work Ratio Rating	0.73
Integrated DC KW-HRS	1.835
Manufacturer Fuel Economy	47.49

Charge Depleting Bag/Phase #3

Test Result/Emission Name	Unrounded Test Result
Actual Distance Driven (miles)	3.593
Carbon-Related Exhaust Emissions	0
Drive Trace Absolute Speed Change Rating	1.16
Drive Trace Energy Economy Rating	-0.09
Drive Trace Inertia Work Ratio Rating	2.22
Integrated DC KW-HRS	1.777
Manufacturer Fuel Economy	49.45

Charge Depleting Bag/Phase #4

Test Result/Emission Name	Unrounded Test Result
Actual Distance Driven (miles)	3.862
Carbon-Related Exhaust Emissions	0
Drive Trace Absolute Speed Change Rating	0.68
Drive Trace Energy Economy Rating	-0.28
Drive Trace Inertia Work Ratio Rating	0.93
Integrated DC KW-HRS	1.642
Manufacturer Fuel Economy	42.5

Manufacturer Test Comments

R1T - All Purpose Drive Mode, Tri Motor, Max Battery Pack, and 20" All-Terrain Wheels. Cycle 1: 582.32 Wh/mi, Cycle 2: 474.26 Wh/mi, Cycle 3: 459.68 Wh/mi, Cycle 4: 395.60 Wh/mi,

Fuel Properties

Certification Summary Information Report

Test Group	SRIVT00.0193	Evaporative/Refueling Family	--
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Consolidated List of Standards

Exhaust Standards

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

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

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

Certification Summary Information Report

Test Group		SRIVT00.0193			Evaporative/Refueling Family			--		
Cert Region		California + CAA Section 177 states			Cert/In-Use Code			Cert		
Vehicle Class		MDPV (Federal Tier 2, GVWR 8501-10000)			Standard Level			California ZEV		
Fuel		Electricity			Test Procedure			CVS 75 and later (w/o can. load)		
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	
Cert Region		Federal			Cert/In-Use Code			Cert		
Vehicle Class		MDPV (Federal Tier 2, GVWR 8501-10000)			Standard Level			Federal Tier 3 Bin 0		
Fuel		Electricity			Test Procedure			CVS 75 and later (w/o can. load)		
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	
Cert Region		Federal			Cert/In-Use Code			Cert		
Vehicle Class		MDPV (Federal Tier 2, GVWR 8501-10000)			Standard Level			Federal Tier 3 Bin 0		
Fuel		Electricity			Test Procedure			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

Test Group	SRIVT00.0193	Evaporative/Refueling Family	--
Glossary			
Useful Life			
4	4,000 miles	120	120,000 miles
50	50,000 miles	150	150,000 miles
100	100,000 miles		
Emission Name			
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		
Certification Region			
CA	California + CAA Section 177 states	FA	Federal
Exhaust Emission Standard Level			
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	SRIVT00.0193	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	
Transmission Type Code				
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)	
Drive System Code				
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	SRIVT00.0193	Evaporative/Refueling Family	--
R	2-Wheel Drive, Rear		
Additional Terms and Acronyms			
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

E.O.#. _____ Page 1 of 2

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: SRIVT00.0193

Vehicle Class(es): PC____, LDT1 (0-3750 lbs. LVW)____, LDT2 (≥ 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 IonX,

Other (specify):_____

Total Battery Weight (kg.): 787 Total Battery Volume (liters): 562

No. of batteries or modules per vehicle: 1 Total Battery Voltage: 392

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 Motors3 Rated motor power ^{233 kW @ 4985 RPM Front} 2x 201 kW @ 5252 RPM Rears 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:¹ 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 Tri Max (22in) R1T Tri Max (22in)	Automatic	8532 lbs.	6812 lbs. (R1S) 6791 lbs. (R1T)	7000 lbs.	Conserve a: 45.62 lbf b: 0.2727 lbf/mph c: 0.02222 lbf/mph ² All-Purpose a: 46.02 lbf b: 0.1417 lbf/mph c: 0.02689 lbf/mph ²

Date Issued: 07/30/2024

Revisions:

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

Suggested ZEV Application Format for Certification

E.O.#. _____ Page 2 of 2

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: SRIVT00.0193

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.				
R1S351XR22	Auto	7000 lbs.	Conserve/All-Purpose: a: -8.16 lbs b: 0.2842 lbs/mph c: 0.02125 lbs/mph ²	Conserve: 596.30	274.04	234.17	234.17
				All-Purpose: 512.64	319.27	272.31	272.31
				Hwy. Range	System AC (Wh/mi)	System DC (Wh/mi)	Vehicle DC (Wh/mi)
				Conserve: 517.42	315.82	269.87	269.87
				All-Purpose: 439.86	372.27	317.37	317.37

Battery Test Results: PASS Specific Energy: Wh/kg 190

Remarks:

Date Issued: 07/30/2024 Revisions:

----- **ARB USE ONLY** -----

Application:

Processed By: _____ Date: _____ Reviewed by: _____ Date: _____

Suggested ZEV Application Format for Certification

E.O.#. _____ Page 1 of 2

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: SRIVT00.0193

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 IonX,

Other (specify):_____

Total Battery Weight (kg.): 787 Total Battery Volume (liters): 562

No. of batteries or modules per vehicle: 1 Total Battery Voltage: 392

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 Motors3 Rated motor power ^{233 kW @ 4985 RPM Front} 2x 201 kW @ 5252 RPM Rears 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:¹ 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 All-Terrain Tri Max (20in) R1T All-Terrain Tri Max (20in)	Automatic	8532 lbs.	6951 lbs. (R1S) 6952 lbs. (R1T)	7000 lbs.	Conserve a: 57.27 lbf b: 0.5062 lbf/mph c: 0.02077 lbf/mph ² All-Purpose a: 57.34 lbf b: 0.4310 lbf/mph c: 0.02406 lbf/mph ²

Date Issued: 07/30/2024 Revisions:

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

Suggested ZEV Application Format for Certification

E.O.#. _____ Page 2 of 2

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: SRIVT00.0193

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.				
R1T358XR20	Auto	7500 lbs.	Conserve/All-Purpose: a: -12.35 lbs b: 0.2486 lbs/mph c: 0.02198 lbs/mph ²	Conserve: 514.86	317.18	271.77	271.77
				All-Purpose: 444.31	367.86	313.52	313.52
				Hwy. Range	System AC (Wh/mi)	System DC (Wh/mi)	Vehicle DC (Wh/mi)
				Conserve: 453.73	359.92	308.39	308.39
				All-Purpose: 389.50	419.62	357.64	357.64

Battery Test Results: PASS Specific Energy: Wh/kg 190

Remarks:

Date Issued: 07/30/2024 Revisions:

----- **ARB USE ONLY** -----

Application:

Processed By: _____ Date: _____ Reviewed by: _____ Date: _____