RIVIAN AUTOMOTIVE, LLC

Application for Certification - Part 1

2023 **Model Year**

EPA Manufacturer Code: RIV
Test Group: PRIVD00.0VLE

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

Test Group Description:	Battery Electric Vehicle
Applicable Standards:	U.S. EPA: Tier 3 Bin 0 HDV Class 2b CA: ZEV MDV
Carlines Covered:	EDV 500 MCA EDV 700 MCA
Document Date:	01/19/2023

For Questions, Contact:
S. Zaker, SepZaker@rivian.com

14600 Myford Road
Irvine, CA 92606

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

Subject: MY 2023 Rivian Heavy Duty Vehicle Initial Application for issuance of Certificate of Conformity for Test Group PRIVD00.0VLE.

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:	Heavy Duty Vehicle Class 2b (9350 lbs. GVW)
Test Group:	PRIVD00.0VLE
Evaporative Family:	N/A
Federal Standard:	Tier 3 Bin 0 Class 2b
California Standard:	ZEV

Test Group Description:

V - Van
L - LFP Battery
E - Enduro Motor

Vehicles Covered by this certificate:
Rivian EDV 500 MCA
Rivian EDV 700 MCA

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, Range, Wireless & Material Compliance

14600 Myford Road
Irvine, CA 92606

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

Subject: MY 2023 Rivian Heavy Duty Vehicle OBD letter for issuance of Certificate of Conformity for Test Group PRIVD00.0VLE.

Rivian is a manufacturer of Battery Electric Vehicle, including EDV 500 MCA and EDV 700 MCA. Battery Electric Vehicles are exempt
from OBD II requirements.

Vehicle Category:	Heavy Duty Vehicle Class 2b (9350 lbs. GVW)
Test Group:	PRIVD00.0VLE
Evaporative Family:	N/A
Federal Standard:	Tier 3 Bin 0 Class 2b
California Standard:	ZEV

Test Group Description:

V - Van
L - LFP Battery
E - Enduro Motor

Vehicles Covered by this certificate:
Rivian EDV 500 MCA
Rivian EDV 700 MCA

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email me at sepzaker@rivian.com or my phone number available on CDX.

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14600 Myford Road
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Mr. Jim Snyder
Compliance and Innovative Strategies Division
Office of Mobile Sources
Environmental Protection Agency
2000 Traverwood, Ann Arbor, MI 48105

Subject: MY 2023 Rivian Heavy Duty Vehicle Durability letter for issuance of Certificate of Conformity for Test Group PRIVD00.0VLE.

Rivian is a manufacturer of Battery Electric Vehicle, including EDV 500 MCA and EDV 700 MCA. Battery Electric Vehicles (no tailpipe
emissions) are exempt from emissions equipment durability requirements.

Vehicle Category:	Heavy Duty Vehicle Class 2b (9350 lbs. GVW)
Test Group:	PRIVD00.0VLE
Evaporative Family:	N/A
Federal Standard:	Tier 3 Bin 0 Class 2b
California Standard:	ZEV

Test Group Description:

V - Van
L - LFP Battery
E - Enduro Motor

Vehicles Covered by this certificate:
Rivian EDV 500 MCA
Rivian EDV 700 MCA

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email me at sepzaker@rivian.com or my phone number available on CDX.

Sepehr Zakeresfahani
Sr. Manager, Range, Wireless & Material Compliance

RIVIAN

14600 Myford Road
Irvine, CA 92606

Mr. Steven Hada
Emissions Certification and Compliance Division (ECCD)
Air Resources Board Laboratory
9528 Telstar Avenue, El Monte, CA 91731

Subject: MY 2023 Rivian Heavy Duty Vehicles Initial Application for issuance of an Executive Order for Test Group PRIVD00.0VLE.

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:	Heavy Duty Vehicle Class 2b (9350 lbs. GVW)
Test Group:	PRIVD00.0VLE
Evaporative Family:	N/A
Federal Standard:	Tier 3 Bin 0 Class 2b
California Standard:	ZEV

Test Group Description:

V - Van
L - LFP Battery
E - Enduro Motor

Vehicles Covered by this certificate:
Rivian EDV 500 MCA
Rivian EDV 700 MCA

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, Range, Wireless & Material Compliance

Contents

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 – Range, Wireless, and Material Compliance
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)

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03.03.00 Configurations and Sub configurations

03.04.00 Test Procedures

03.04.01 Range Test Procedures
Range testing is not required for Heavy-Duty Electric Vehicles for EPA CoC Certification.

03.04.02 Description of Coastdown

03.05.00 Special Test Instructions
Vehicle Setup:

Instrumentation:
Battery voltage and current measurement were taken using HBM power analyzer & Hioki CT684X-05 current clamps.

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

INSTRUMENTATION

DCDC & OBC – 200A

DCDC & EAC – 200A

Power Analyzer

Front Drive Unit – 500A

DCAC & HVAC – 200A

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 Heavy-Duty Class 2b Vehicles and state of California ZEV regulations applicable to new Medium-Duty Vehicles for the 2023 Model Year.

04.00.00 (Reserved)
05.00.00 (Reserved)
06.00.00 Maintenance
06.01.00 Test vehicle scheduled maintenance
N/A

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	30K	60K	90K	120K	150K	180K	210K	240K	270K	300K
EDV 700 Maintenance Schedule										
Battery and powertrain coolant replacement					X					X
Brake fluid replacement		X		X		X		X		X
Multi-point inspection	X	X	X	X	X	X	X	X	X	X
Tire rotation & Tire Replacement (2 tires)	X	X	X	X	X	X	X	X	X	X
Wiper blades set replacement	X	X	X	X	X	X	X	X	X	X
Drive unit & gearbox fluid lubricant				X				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	mm²/s	**6.3**
Viscosity, Kinematic 40°C	ASTM D445	mm²/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

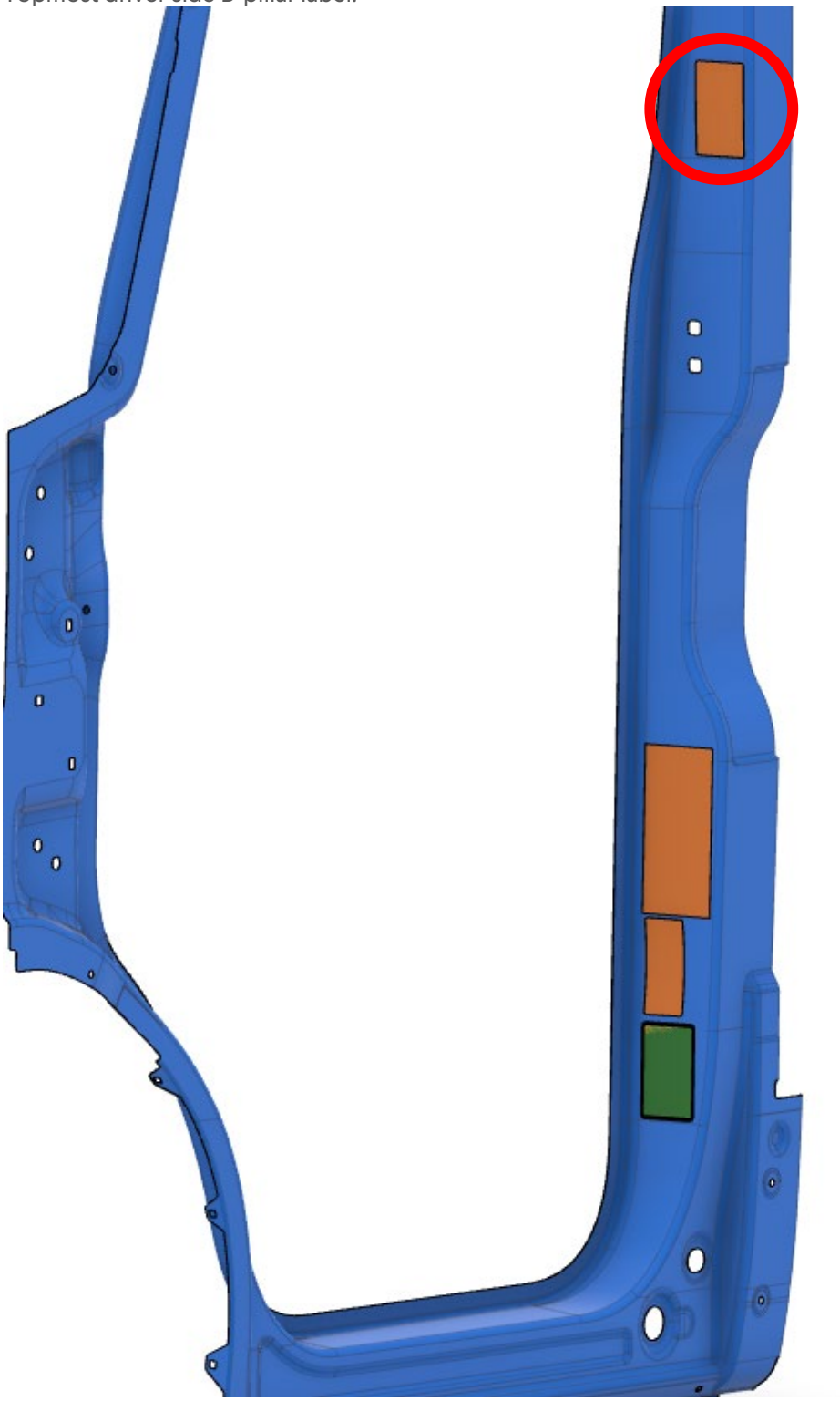
Performance of L288 According to ASTM D3306

Table 1 – ASTM D3306 Results

Item			ASTM D3306 Type I	CCI L288
Color			Distinctive	Yellow
Relative Density 15.5/15.5°C			1.110 ~ 1.145	1.128
Freezing Point °C	50 vol% in DI water		-36.4 max.	-37
Boiling Point °C	50 vol% in DI water		108 min.	109
Ash content mass%			5 max.	1.7
pH	50 vol% in DI water		7.5 ~ 11.0	7.6
Chloride 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.	0.2
		Solder	30 max.	4.3
		Brass	10 max.	1.9
		Steel	10 max.	0.7
		Cast Iron	10 max.	1.4
		Aluminum	30 max.	+0.2
Simulated Service Test	Weight Loss(1) mg/Specimen	Copper	20 max.	0.7
		Solder	60 max.	6.9
		Brass	20 max.	5.9
		Steel	20 max.	0.2
		Cast Iron	20 max.	3.3
		Aluminum	60 max.	0.1
Corrosion of Cast Aluminum Alloys at Heat-Rejecting Surfaces mg/cm²/week			1.0 max.	0.1
Foaming	Volume mL		150 max.	20
	Break Time s		5 max.	3
Cavitation-Erosion Rating for pitting, cavitation, and erosion of the water pump			8 min.	9

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

07.00.00 Vehicle Emission Control Information (VECI) and Environmental
07.01.00 VECI Label locations
Topmost driver side B-pillar label.



07.02.00 Sample VECI labels

07.03.00 Sample EP label (Formerly called the Smog Index label)
No Environmental Performace or Fuel Economy label required for Heavy-Duty Electric Vehicles.

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 Heavy-Duty Class 2b Vehicles and state of California ZEV regulations applicable to new Medium-Duty Vehicles for the 2023 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 is 234 Ah based on a constant current C/5 discharge rate.

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

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

08.03.04 Definition of end-of-life

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 prioritize 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
- The system consists of electronically controlled face vents to direct airflow around the driver, foot outlets in the driver footwell, and fully vented driver seat.
- Auto/manual blower fan control
- The system is equipped with Air Conditioning, PTC heater, and vented seats.

08.06.01 Electric Heat Pump
N/A

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, user has complete control on blower speed, temperature control and airflow distribution to face or foot. Recirculation of air is also manually controlled by the user.
- In Auto mode, software provides adequate heating and cooling request to control the breath temperature for the driver to the requested setpoint. In this mode, the airflow distribution and the blower speed are automatically selected to maintain desired temperature from the screen. The software estimates the breath temperature of driver based on airflow through ducts, In-

Cabin sensor, external ambient temperature, and solar load. Recirculation of air inside cabin is automatically selected.

- Additionally, defrost or demist mode is provided to the user to clear view while driving. During defog mode, software supplies conditioned air towards the windshield based on the dew point calculation. If the desired mode is Defrost, by running PTC heater hot air is directed towards 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 is the default, in this mode, fully releasing the pedal yields the maximum regen level. And about halfway through the pedal travel is the neutral point, where regen is limited. As the driver manually increases primary service brake pressure and friction braking torque, the vehicle regen level will proportionally ramp down to 0 Nm based on the driver braking pressure. 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 EDV 500 MCA and EDV 700 MCA is 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.
- Store the cable neatly to prevent a tripping hazard.

08.08.02 Power requirements necessary to recharge vehicle
The Rivian EDV 500 MCA and EDV 700 MCA complies with industry standard SAE J1772 for AC Level 1 (120 VAC) and AC Level 2 (240 VAC) charging.

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 cordset 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 at a later time.
The Rivian EDV 500 MCA and EDV 700 MCA provides 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 94.7 kWh 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 (Reserved)
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

17.01.01 General statement
Every vehicle which is covered by this application conforms to US EPA Federal Tier 3 Bin 0 regulations applicable to new Heavy-Duty Class 2b Vehicles and state of California ZEV regulations applicable to new Medium-Duty Vehicles for the 2023 Model Year.

17.01.02 Drivability statement
n/a

17.02.00 Supplemental Data and Certification Review 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

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)

Fuel Type (s) = Electro-Chemical Battery

Battery Type (s) = Lithium Ferro-Phosphate

Number of Batteries or modules per vehicle = 1

Charger(s) = On-Board

Charger(s) = Conductive

Total Battery Weight, Kg = 705.6 kg

Total Battery Volume = 0.5052 m3 (505.2 L)

Plated GVWR: 4241 kg (9350 lb)

EDV 500 MCA Curb Weight: 3110 kg (6857 lb)

EDV 700 MCA Curb Weight: 3309 kg (7295 lb)

Energy Capacity, 94.7 kWh

Battery Specific Energy, Wh/Kg = 134 Wh/kg

Total Battery Voltage, Nominal = 403 V

Test Results:

No range testing required for Heavy-Duty Electric Vehicles for EPA.

Certification Summary Information Report

Manufacturer	Rivian Automotive LLC	**Manufacturer Code**	RIV
Test Group	PRIVD00.0VLE	**Evaporative/Refueling Family**	--
Certificate Number	--	**CARB Executive Order #**	--
Certificate Issue Date	--	**Certificate Revision Date**	--
Certificate Effective Date	--	**Conditional Certificate**	--
CSI Revision #	--	**CSI Submission/Revision Date**	01/19/2023 04:46:47 PM
Model Year	2023		

Test Group Information

CSI Type	Update for Correction	**Running Change Reference Number**	--
GHG Exempt Status	Not Exempt		

Drive Sources and Fuel(s)

Drive Source #1: Electric Motor

Fuel	Basic Fuel Metering System	Lean Burn Strategy Indicator
Electricity	--	--

Hybrid Indicator	No		
Multiple Fuel Storage	--	**Rechargeable Energy Storage System Indicator**	Yes
Multiple Fuel Combustion	--	**Off-board Charge Capable Indicator**	Yes
Fuel Cell Indicator	No	**EPA Vehicle Class**	HDV1
Federal Clean Fuel Vehicle	Yes	**Federal Clean Fuel Vehicle Standard**	ZEV
Federal Clean Fuel Vehicle ILEV	No	**California Partial Zero Emissions Vehicle Indicator**	--
Durability Group Name	PRIVR0000VLE	**Durability Group Equivalency Factor**	1
Reduced Fee Test Group	No	**Certification Region Code(s)**	FA, CA
Complies with HD GHG 2b/3 regulations?	Yes		
Introduction into Commerce Date	--	**CAP2000 Conditional Certificate?**	N/A
Independent Commercial Importer?	--	**Alternative Fuel Converter Certificate?**	--
SFTP Federal Composite Compliance Identifier	Not Applicable	**SFTP Tier 2 Composite CO Option**	No
SFTP LEV-III Composite Compliance Indicator	No		
OBD Compliance Type	CARB	**OBD Demonstration Vehicle Test Group**	PRIVD00.0VLE
Test Group OBD Compliance Level	Full - no deficiencies	**Number of Test Group OBD Deficiencies**	0
OBD Deficiencies Comments	OBD COMPLIANCE IS NOT APPLICABLE TO ZEV. PARAMETERS ARE PLACEHOLDERS TO ALLOW DATASET SUBMISSION.		
Mfr Test Group Comments	DURABILITY IS NOT APPLICABLE TO ZEV. PARAMETERS ARE PLACEHOLDERS TO ALLOW DATASET SUBMISSION.		
Mfr Exhaust / Evap Standards Comments	--		

Certification Summary Information Report

Test Group	PRIVD00.0VLE	**Evaporative/Refueling Family**	--

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	701 - EDV 700 MCA	Federal	2-Wheel Drive, Front	Automatic	1	No
Rivian Automotive LLC	1 - Rivian	501 - EDV 500 MCA	California + CAA Section 177 states	2-Wheel Drive, Front	Automatic	1	No
Rivian Automotive LLC	1 - Rivian	701 - EDV 700 MCA	California + CAA Section 177 states	2-Wheel Drive, Front	Automatic	1	No
Rivian Automotive LLC	1 - Rivian	501 - EDV 500 MCA	Federal	2-Wheel Drive, Front	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	--	--	--

Official Charge Depleting Test Numbers

Test Group Fuel	UDDS	Highway
Electricity	PRIV10078488	PRIV10078487
Electricity	PRIV10078363	PRIV10078364

Certification Summary Information Report

Test Group	PRIVD00.0VLE	**Evaporative/Refueling Family**	--

Hybrid Electric Vehicle And Fuel Cell Information

Rechargable Energy Storage System	Battery(s)	**Rechargable Energy Storage System, if Other**	--
Battery Type	Lithium Ferro-Phosphate	**Number of Battery Packs**	1
Total Voltage of Battery Packs	403	**Battery Energy Capacity**	234
Battery Specific Energy	134	**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	Front Wheels	**Driver Controlled Regenerative Braking**	Yes
Mfr Regenerative Braking Description	--		
Drive Motor(s)/Generator(s)	1		
Motor/Generator Type 1	AC 3 PHASE PERMANENT MAGNET	**Rated Motor/Generator Power**	264
Mfr Fuel Cell Description	--		
Fuel Cell On-Board H2 Storage Capacity (kg)	--	**Usable H2 Fill Capacity (kg)**	--
Mfr Hybrid Electric/ Electric Vehicle Comments	--		

Certification Summary Information Report

Test Group	PRIVD00.0VLE	**Evaporative/Refueling Family**	--

Emission Data Vehicle Information

Vehicle ID / Configuration	558X / 0	**Manufacturer Vehicle Configuration Number**	0
Original Test Group Name	PRIVD00.0VLE	**Original Evaporative/Refueling Family**	--
Original Test Vehicle Model Year	2023		

Vehicle Model

Represented Test Vehicle Make	Rivian	**Represented Test Vehicle Model**	EDV 500 MCA

Leak Family Details

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

Drive Sources and Fuel System Details

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

Hybrid Indicator	No		
Multiple Fuel Storage	--	**Multiple Fuel Combustion**	--
Fuel Cell Indicator	No	**Rechargeable Energy Storage System Indicator**	Yes
Rechargeable Energy Storage System	Battery(s)	**Rechargeable Energy Storage System, if 'Other'**	--
Off-board charge Capable Indicator	Yes		
Odometer Correction -- Initial	0	**Odometer Correction Factor**	1
Odometer Correction Sign	- = System Miles is equal to (Test odometer reading - Initial system miles) * Correction factor		
Odometer Correction Units	Miles		
Engine Code	264X1OG	**Rated Horsepower**	354
Displacement (liters)	99.999		
Air Aspiration Method	Naturally Aspirated	**Air Aspiration Method, if 'Other'**	
Number of Air Aspiration Devices	--	**Air Aspiration Device Configuration**	--
Charge Air Cooler Type	--	**Drive Mode While Testing**	2-Wheel Drive, Front
Shift Indicator Light Usage	Not eqipped	**Aged Emission Components**	4,000 (mi)
Curb Weight (lbs)	6857	**Equivalent Test Weight (pounds)**	8000
GVWR (lbs)	9350	**N/V Ratio**	151
Axle Ratio	9.99		
Transmission Type	Automatic	**# of Transmission Gears**	1
Transmission Lockup	Yes	**Creeper Gear**	No

Dynamometer Coefficients:

	Target Coefficients			Set Coefficients			
Coefficient Category	**A (lbf)**	**B (lbf/mph)**	**C (lbf/mph**2)**	**A (lbf)**	**B (lbf/mph)**	**C (lbf/mph**2)**	**EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients**
City/Highway/Evap	61.65	0.3999	0.04358	99.99	0.9999	0.0999	25.4

Emission Control Device Comments --

Certification Summary Information Report

Test Group	PRIVD00.0VLE	**Evaporative/Refueling Family**	--
Manufacturer Test Vehicle Comments	Axle Ratio is 13.7:1 Set Coefficients are place holders, Testing not required for Heavy-Duty Electric Vehicles Revised Target Coefficients and Set Coefficients will be submitted.		

Certification Summary Information Report

Test Group	PRIVD00.0VLE	**Evaporative/Refueling Family**	--

Test #	**PRIV10078363**	**Test Procedure**	**81 - Charge Depleting UDDS**
Exhaust Test # for this Evap Test	--	**Test Fuel Type**	62 - Electricity
Test Date	12/21/2022	**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	2814	**Odometer Units**	M
4WD Test Dyno	No	**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)**	108.441
Charge Depleting Range (Calculated miles)	262.43	**Charge Depleting Range (Actual miles)**	262.43
All Electric Range Unadjusted (miles)	--	**Derived 5-Cycle Coefficient Model Year**	--
Equivalent All Electric Range (miles)	262.43		
Number of Charge Depleting Bags/Phases Conducted	4	**Transition Bag/Phase Number**	--

Charge Depleting Bag/Phase

Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result
1	Carbon-Related Exhaust Emissions	0
2	Drive Trace Absolute Speed Change Rating	-1.7
3	Drive Trace Energy Economy Rating	-0.96
4	Drive Trace Inertia Work Ratio Rating	-2.21
5	Manufacturer Fuel Economy	38.06

Charge Depleting Bag/Phase

Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result
6	Carbon-Related Exhaust Emissions	0
7	Drive Trace Absolute Speed Change Rating	1.975
8	Drive Trace Energy Economy Rating	1.58
9	Drive Trace Inertia Work Ratio Rating	3.215
10	Manufacturer Fuel Economy	34.63

Charge Depleting Bag/Phase

Certification Summary Information Report

Test Group PRIVD00.0VLE **Evaporative/Refueling Family** --

Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result
11	Carbon-Related Exhaust Emissions	0
12	Drive Trace Absolute Speed Change Rating	0.92
13	Drive Trace Energy Economy Rating	1.21
14	Drive Trace Inertia Work Ratio Rating	1.6
15	Manufacturer Fuel Economy	34.18

Charge Depleting Bag/Phase

Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result
16	Carbon-Related Exhaust Emissions	0
17	Drive Trace Absolute Speed Change Rating	-1.89
18	Drive Trace Energy Economy Rating	-1.065
19	Drive Trace Inertia Work Ratio Rating	-2.61
20	Manufacturer Fuel Economy	33.88

Manufacturer Test Comments Cycle 1: 380.56 Wh/mi, Cycle 2: 338.80 Wh/mi, Cycle 3: 346.31 Wh/mi, Cycle 4: 341.82 Wh/mi. MCT Energy: 90146.64 Wh

Certification Summary Information Report

Test Group	PRIVD00.0VLE	**Evaporative/Refueling Family**	--

Test #	**PRIV10078364**	**Test Procedure**	**84 - Charge Depleting Highway**
Exhaust Test # for this Evap Test	--	**Test Fuel Type**	62 - Electricity
Test Date	12/21/2022	**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	2814	**Odometer Units**	M
4WD Test Dyno	No	**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)**	108.441
Charge Depleting Range (Calculated miles)	202.88	**Charge Depleting Range (Actual miles)**	202.88
All Electric Range Unadjusted (miles)	--	**Derived 5-Cycle Coefficient Model Year**	--
Equivalent All Electric Range (miles)	202.88		
Number of Charge Depleting Bags/Phases Conducted	2	**Transition Bag/Phase Number**	--

Charge Depleting Bag/Phase

Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result
1	Carbon-Related Exhaust Emissions	0
2	Drive Trace Absolute Speed Change Rating	2.35
3	Drive Trace Energy Economy Rating	0.25
4	Drive Trace Inertia Work Ratio Rating	3.1
5	Manufacturer Fuel Economy	44.49

Charge Depleting Bag/Phase

Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result
6	Carbon-Related Exhaust Emissions	0
7	Drive Trace Absolute Speed Change Rating	-4.77
8	Drive Trace Energy Economy Rating	0.2
9	Drive Trace Inertia Work Ratio Rating	-6.18
10	Manufacturer Fuel Economy	44.37

Manufacturer Test Comments Cycle 1: 443.74 Wh/mi, Cycle 2: 444.94Wh/mi, MCT Energy: 90146.64 Wh

Certification Summary Information Report

Test Group	PRIVD00.0VLE	**Evaporative/Refueling Family**	--

Emission Data Vehicle Information

Vehicle ID / Configuration	794X / 0	**Manufacturer Vehicle Configuration Number**	0
Original Test Group Name	PRIVD00.0VLE	**Original Evaporative/Refueling Family**	--
Original Test Vehicle Model Year	2023		

Vehicle Model

Represented Test Vehicle Make	Rivian	**Represented Test Vehicle Model**	EDV 700 MCA

Leak Family Details

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

Drive Sources and Fuel System Details

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

Hybrid Indicator	No		
Multiple Fuel Storage	--	**Multiple Fuel Combustion**	--
Fuel Cell Indicator	No	**Rechargeable Energy Storage System Indicator**	Yes
Rechargeable Energy Storage System	Battery(s)	**Rechargeable Energy Storage System, if 'Other'**	--
Off-board charge Capable Indicator	Yes		
Odometer Correction -- Initial	0	**Odometer Correction Factor**	1
Odometer Correction Sign	- = System Miles is equal to (Test odometer reading - Initial system miles) * Correction factor		
Odometer Correction Units	Miles		
Engine Code	264X1OG	**Rated Horsepower**	354
Displacement (liters)	99.999		
Air Aspiration Method	Naturally Aspirated	**Air Aspiration Method, if 'Other'**	
Number of Air Aspiration Devices	--	**Air Aspiration Device Configuration**	--
Charge Air Cooler Type	--	**Drive Mode While Testing**	2-Wheel Drive, Front
Shift Indicator Light Usage	Not eqipped	**Aged Emission Components**	4,000 (mi)
Curb Weight (lbs)	7295	**Equivalent Test Weight (pounds)**	8500
GVWR (lbs)	9350	**N/V Ratio**	151
Axle Ratio	9.99		
Transmission Type	Automatic	**# of Transmission Gears**	1
Transmission Lockup	Yes	**Creeper Gear**	No

Dynamometer Coefficients:

	Target Coefficients			Set Coefficients			
Coefficient Category	**A (lbf)**	**B (lbf/mph)**	**C (lbf/mph**2)**	**A (lbf)**	**B (lbf/mph)**	**C (lbf/mph**2)**	**EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients**
City/Highway/Evap	68.1	0.3797	0.04737	99.99	0.9999	0.0999	27.4

Emission Control Device Comments --

Certification Summary Information Report

Test Group	PRIVD00.0VLE	**Evaporative/Refueling Family**	--

Manufacturer Test Vehicle Comments Axle Ratio is 13.7:1 Set Coefficients are place holders, Testing not required for Heavy-Duty Electric Vehicles

Test #	**PRIV10078487**	**Test Procedure**	**84 - Charge Depleting Highway**
Exhaust Test # for this Evap Test	--	**Test Fuel Type**	62 - Electricity
Test Date	01/19/2023	**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	9999	**Odometer Units**	M
4WD Test Dyno	No	**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)**	999.999
Charge Depleting Range (Calculated miles)	999.99	**Charge Depleting Range (Actual miles)**	999.99
All Electric Range Unadjusted (miles)	--	**Derived 5-Cycle Coefficient Model Year**	--
Equivalent All Electric Range (miles)	999.99		
Number of Charge Depleting Bags/Phases Conducted	2	**Transition Bag/Phase Number**	--

Charge Depleting Bag/Phase

Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result
1	Carbon-Related Exhaust Emissions	0
2	Drive Trace Absolute Speed Change Rating	9.99
3	Drive Trace Energy Economy Rating	9.99
4	Drive Trace Inertia Work Ratio Rating	9.99
5	Manufacturer Fuel Economy	9.99

Charge Depleting Bag/Phase

Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result
6	Carbon-Related Exhaust Emissions	0
7	Drive Trace Absolute Speed Change Rating	9.99
8	Drive Trace Energy Economy Rating	9.99
9	Drive Trace Inertia Work Ratio Rating	9.99
10	Manufacturer Fuel Economy	9.99

Manufacturer Test Comments Placeholder values added to odometer, Charge depleting test info, and Test Results. Testing not required for Heavy-Duty Electric Vehicles

Certification Summary Information Report

Test Group	PRIVD00.0VLE	**Evaporative/Refueling Family**	--

Test #	**PRIV10078488**	**Test Procedure**	**81 - Charge Depleting UDDS**
Exhaust Test # for this Evap Test	--	**Test Fuel Type**	62 - Electricity
Test Date	01/19/2023	**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	9999	**Odometer Units**	M
4WD Test Dyno	No	**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)**	999.99
Charge Depleting Range (Calculated miles)	999.99	**Charge Depleting Range (Actual miles)**	999.99
All Electric Range Unadjusted (miles)	--	**Derived 5-Cycle Coefficient Model Year**	--
Equivalent All Electric Range (miles)	999.99		
Number of Charge Depleting Bags/Phases Conducted	4	**Transition Bag/Phase Number**	--

Charge Depleting Bag/Phase

Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result
1	Carbon-Related Exhaust Emissions	0
2	Drive Trace Absolute Speed Change Rating	9.99
3	Drive Trace Energy Economy Rating	9.99
4	Drive Trace Inertia Work Ratio Rating	9.99
5	Manufacturer Fuel Economy	9.99

Charge Depleting Bag/Phase

Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result
6	Carbon-Related Exhaust Emissions	0
7	Drive Trace Absolute Speed Change Rating	9.99
8	Drive Trace Energy Economy Rating	9.99
9	Drive Trace Inertia Work Ratio Rating	9.99
10	Manufacturer Fuel Economy	9.99

Charge Depleting Bag/Phase

Certification Summary Information Report

Test Group PRIVD00.0VLE **Evaporative/Refueling Family** --

Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result
11	Carbon-Related Exhaust Emissions	0
12	Drive Trace Absolute Speed Change Rating	9.99
13	Drive Trace Energy Economy Rating	9.99
14	Drive Trace Inertia Work Ratio Rating	9.99
15	Manufacturer Fuel Economy	9.99

Charge Depleting Bag/Phase

Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result
16	Carbon-Related Exhaust Emissions	0
17	Drive Trace Absolute Speed Change Rating	9.99
18	Drive Trace Energy Economy Rating	9.99
19	Drive Trace Inertia Work Ratio Rating	9.99
20	Manufacturer Fuel Economy	9.99

Manufacturer Test Comments Placeholder values added to odometer, Charge depleting test info, and Test Results. Testing not required for Heavy-Duty Electric Vehicles

Fuel Properties

Certification Summary Information Report

Test Group	PRIVD00.0VLE	**Evaporative/Refueling Family**	--

Consolidated List of Standards

Exhaust Standards

Cert Region	California + CAA Section 177 states	**Cert/In-Use Code**	Cert
Vehicle Class	HDV1 (Federal HD chassis Class 2b GVW 8501-10000)	**Standard Level**	California ZEV
Fuel	Electricity	**Test Procedure**	HWFE

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	CO2	--	--	--	--	--	--	0	0

Cert Region	Federal	**Cert/In-Use Code**	Cert
Vehicle Class	HDV1 (Federal HD chassis Class 2b GVW 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	CO2	--	--	--	--	--	--	0	0

Cert Region	Federal	**Cert/In-Use Code**	Cert
Vehicle Class	HDV1 (Federal HD chassis Class 2b GVW 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
150,000 miles	CO2	--	--	--	--	--	--	0	0

Certification Summary Information Report

Test Group	PRIVD00.0VLE	**Evaporative/Refueling Family**	--
Cert Region	California + CAA Section 177 states	**Cert/In-Use Code**	Cert
Vehicle Class	HDV1 (Federal HD chassis Class 2b GVW 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
150,000 miles	CO2	--	--	--	--	--	--	0	0

Cert Region	Federal	**Cert/In-Use Code**	Cert
Vehicle Class	HDV1 (Federal HD chassis Class 2b GVW 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	CO2	--	--	--	--	--	--	0	0

Cert Region	California + CAA Section 177 states	**Cert/In-Use Code**	Cert
Vehicle Class	HDV1 (Federal HD chassis Class 2b GVW 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	CO2	--	--	--	--	--	--	0	0

Certification Summary Information Report

Test Group	PRIVD00.0VLE	**Evaporative/Refueling Family**	--
Cert Region	California + CAA Section 177 states	**Cert/In-Use Code**	Cert
Vehicle Class	HDV1 (Federal HD chassis Class 2b GVW 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	CO2	--	--	--	--	--	--	0	0

Cert Region	Federal	**Cert/In-Use Code**	Cert
Vehicle Class	HDV1 (Federal HD chassis Class 2b GVW 8501-10000)	**Standard Level**	Federal Tier 3 Bin 0
Fuel	Electricity	**Test Procedure**	HWFE

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	CO2	--	--	--	--	--	--	0	0

Certification Summary Information Report

Test Group	PRIVD00.0VLE	**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	METHANOL	CH3OH - Methanol
CO	Carbon Monoxide	N2O	Nitrous Oxide
CO2	Carbon dioxide	SPITBACK	Spitback Hydrocarbon in grams
CREE	Carbon-Related Exhaust Emissions	AMP-HRS	Integrated Amp-hours
OPT-CREE	Optional Carbon-Related Exhaust Emissions	START-SOC	System Start State of Charge Watt-hours
NOX	Nitrogen Oxide	END-SOC	System End State of Charge Watt-hours
PM	Particulate Matter	ACT-DISTANCE	Actual Distance Driven (miles)
PM-COMP	SFTP Composite Particulate Matter	AS-VOLT	Average System Voltage
HC-NM	Non-methane Hydrocarbon	CO2 BAG 1	Bag 1 Carbon Dioxide
OMHCE	Organic material Hydrocarbon Equivalent	CO2 BAG 2	Bag 2 Carbon Dioxide
OMNMHCE	Organic material non-methane HC equivalent	CO2 BAG 3	Bag 3 Carbon Dioxide
NMOG	Non-methane organic gases	CO2 BAG 4	Bag 4 Carbon Dioxide
HCHO	Formaldehyde	NMOG+NOX	Non-methane organic gases plus Nitrogen Oxides
H3C2HO	Acetaldehyde	NMOG+NOX-COMP	SFTP Composite Non-methane Organic Gases + Nitrogen Oxides
HC-NM+NOX	SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03	DT-IWRR	Drive Trace Inertia Work Ratio Rating
HC-NM+NOX-COMP	SFTP Composite Non-methane Hydrocarbon + Nitrogen Oxides	DT-ASCR	Drive Trace Absolute Speed Change Rating
CO-COMP	SFTP Composite Carbon Monoxide	DT-EER	Drive Trace Energy Economy Rating
ETHANOL	C2H5OH - Ethanol	COMB-CREE	Combined Carbon-Related Exhaust Emissions
FE BAG 1	Bag 1 Fuel Economy	COMB-OPT-CREE	Combined Optional Carbon-Related Exhaust Emissions
FE BAG 2	Bag 2 Fuel Economy	HC-TOTAL-EQUIV	Total Hydrocarbon equivalent - Evap only
FE BAG 3	Bag 3 Fuel Economy	METHANE-COMB	Combined CH4 for HD 2b/3 vehicles only
FE BAG 4	Bag 4 Fuel Economy	N2O-COMB	Combined Nitrous Oxide for HD 2b/3 vehicles only
MFR FE	Manufacturer Fuel Economy	LEAK-DIA	Effective Leak Diameter (inches)
HC	Hydrocarbon for Running Loss and ORVR	LEAK-GAS CAP	Gas Cap Leakage (cc/min)
METHANE	CH4 - Methane	CO2-COMB	Combined Carbon Dioxide for HD 2b/3 Vehicles Only

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
B5	Federal Tier 2 Bin 5	L3SULEV150	California LEV-III SULEV150

Certification Summary Information Report

Test Group	PRIVD00.0VLE	**Evaporative/Refueling Family**	--
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
R	2-Wheel Drive, Rear		

Certification Summary Information Report

Test Group	PRIVD00.0VLE	**Evaporative/Refueling Family**	--

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

US EPA Fee Form

Help and EPA Instructions

* Required Field

General Information

Date: 01/13/2023

Process Code *

Submit New Fee Filing Form

Manufacturer Code *

RIV

Manufacturer Name *

Rivian Automotive LLC

Contact Name *

Sep Zaker

Contact Email Address *

sepzaker@rivian.com

Contact Phone *

3175152201

Calendar Year complete application submitted to EPA *

2023

PLEASE NOTE: These fees apply to complete certification applications received by EPA from January 1, 2023, through December 31, 2023. 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 *

PRIVD00.0VLE

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? *

No

Payment Information

Amount Owed

$32,726.00

Payment Type *

Online ACH

Comments

EPA Form Number 3520-29
OMB Control No. 2060-0545
Approval expires 12/31/2022