



## Application for Certification - Part 1

### Test Group (CBI)

- **Model Year:** 2027
- **Manufacturer Name:** Hyundai Motor Company
- **Test Group:** VHYXT00.0400
- **Test Group Description:** Battery Electric Vehicle
- **Durability Group:** VHYXEEENN400
- **Durability Group Description:** N/A
- **Vehicle Class:** LDT4
- **Applicable Standards:** FED: Tier-4 Bin 0  
CAL: ACC2 ZEV
- **Vehicles Tested:** ME1-AU5EPER061A/0 (USA model)  
ME1-KU5EPER060A/0 (CANADA model)
- **Carlines Covered by Certificate:** Ioniq 9 AWD Performance
- **EPA Response Requested by:** March 31, 2026
- **For Questions, Contact:** Stephanie Wright  
734-273-1904  
E-mail: [swright@hatci.com](mailto:swright@hatci.com)

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## **01.00 Correspondence and Communications**

Please refer to Common Section 01.00.

For questions, call Stephanie Wright (734-273-1904).

VHYXT00.0400– Hyundai Ioniq 9 AWD Performance – Part 1  
Issued : 01-31-2026  
Revised :

## 02.00 Durability Group Description

1. Durability Group Name : THYXEEENN400
2. Engine Type : Motor
3. Fuel Used : Electricity
4. Battery Capacity(s) : 180.9 Ah
5. Battery Chemistry(s) : NCM\*1
6. Battery Duty Cycle Usage(s) : 10 years / 200,000km
7. Battery Manufacturer : Hyundai Mobis (SKON Chem.)
8. Battery Construction : 42 modules (504 cells in total)
9. Battery Self-Discharge Information : < 5% @ SOC 65%, RT for 6months
10. Description of the Thermal Management System : Coolant cooling system
11. Battery Disposal Plan : See Common Section 02.00

(Note) \*1 : Nickel Cobalt Manganese

## 02.01 List of Vehicles in Durability Groups

Please refer to Common Section 02.01.

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**02.02 Catalyst Information : Not Applicable**

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**03.00 Evaporative/Refueling Family Description: Not Applicable**

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Issued : 01-31-2026  
Revised:

## **04.00 Durability Procedure Description: Not Applicable**

VHYXT00.0400– Hyundai Ioniq 9 AWD Performance – Part 1  
Issued : 01-31-2026  
Revised :

04-1

## 05.00 Test Group Description

Test Group Name : VHYXT00.0400

Vehicle Class(s) Covered : FED – LDT4  
CAL – PC

Sales Location/Emission Standard : FED - Tier-4 Bin 0  
CAL - ACC2 ZEV  
See CSI report for emission standard levels

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## **06.00 Test Vehicle Description**

Durability Data Vehicle: Not Applicable

Emission Data Vehicle: Please refer to CSI report in 07.00

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## **07.00 Test Results**

### **07.01 EV-CIS Certification Summary Information**

Certification Summary Information Report submitted to EV-CIS.  
See 18.00

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Issued : 01-31-2026  
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**08.00 Emission Compliance Statement: Not Applicable**

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## **09.00 OBD System Description**

Battery electric vehicles are exempt from OBD requirements because they do not use emission control systems and/or components.

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## **10.00 Description of Alternate-Fueled Vehicles: Not Applicable**

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**11.00 AECD Description: Not Applicable**

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Issued : 01-31-2026  
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## 12.00 Description of Vehicles Covered by Certificate and Test Parameters

### 12.01 Vehicle Parameters

Carline		362
Model Name		Ioniq 9 AWD Performance
Vehicle Classification		LDT4
Emission Control System Description		N/A
Engine Code (Motor)		EM34
Number of Valves Per Cylinder		N/A
Engine Displacement (L)		N/A
Sales Area		50-State
Transmission and Overdrive		Fixed Single Speed
SIL		N/A
Tire Size		285/45R21 (Michelin <sup>*1</sup> )/Hankook/Goodyear <sup>*2</sup> )
N/V Ratios		147.2(Michelin) / 146.4(Hankook for USA) 147.6(Hankook for CANADA) / 146.7 (Good year)
ETW(lb)		6500
Elec. Dyno. Target Coefficient	A	Please refer to 12.02.01.
	B	
	C	
Motor	Type	PMSM <sup>*3</sup> )
	Max. Power (kW)	157.3kW (front motor) / 157.3kW (rear motor)
Battery	Type	Lithium ion
	Rated Voltage (V)	610
	Weight (kg)	625.4

(Note) <sup>\*1</sup>) : Tested tire

<sup>\*2</sup>) : This tire is unique for CANADA market.

<sup>\*3</sup>) : Permanent Magnet Synchronous Motor

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Issued : 01-31-2026

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## **12.02.02 Engine Starting Procedures**

Please refer to Common Section 12.02.02.

## **12.02.03 Shift Schedules: Not Applicable**

## **12.02.04 Transmission / Advanced Technology System Test Modes**

Please refer to Common Section 12.02.04.

## **12.02.05 Running Loss Fuel Tank Temperature Profile: Not Applicable**

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## **13.00 Projected Sales**

Please refer to Common Section 13.00.

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Issued : 01-31-2026  
Revised:

## 14.00 Request for Certification



Ms. Kathryn Kochunas  
Certification Division  
Mobile Source Pollution Control  
U.S. Environmental Protection Agency  
2000 Traverwood Drive  
Ann Arbor, Michigan

Subject: Request for Certificate of Conformity for 2027 Model Year Test Group  
VHYXT00.0400 / Evaporative Family N/A

Dear Ms. Kathryn Kochunas:

Hyundai Motor Company requests that EPA issue a Certificate of Conformity for the test group subjected above.

All vehicles within the test group mentioned above comply with the applicable regulations contained in 40 CFR 86.1844-01(d)(14) including the provisions of 40 CFR Parts 85, 86 and 600. This test group also complies with California Air Resources Board, Final Regulation Order, Sections 1961.4 and 1961.3 (1962.4 and 1962.3 for zero-emission vehicles) Title 13, California Code of Regulations.

The Part 1 Application for Certification has been prepared in accordance with the standardized format recommended by EPA via its guidance document CD-14-19 (LDV/LDT/OCO/LIMO) Subject: Certification Application Reporting Guidance, dated November 24, 2014.

If you have any questions in regard to the Certificate of Conformity do not hesitate to contact Stephanie Wright at [swright@hatci.com](mailto:swright@hatci.com) or (734) 273-1904.

Sincerely,

A handwritten signature in black ink, appearing to read 'C. H. Ji', written over a horizontal line.

C. H. Ji  
General Manager  
Regulation & Certification Team2  
Hyundai Motor Company

VHYXV00.0300 - Hyundai GV60 RWD- Part 1  
Issued : 01-15-2026  
Revised:



Ms. Robin U. Lang, Chief  
Emissions Certification and Compliance Division  
California Air Resources Board  
4001 Iowa Ave.  
Riverside, California 92507

Subject: Request for Executive Order for 2027 Model Year Test Group  
VHYXT00.0400 / Evaporative Family N/A

Dear Ms. Robin U. Lang:

Hyundai Motor Company requests that California Air Resources Board (CARB) issue an Executive Order for the test group subjected above.

All vehicles within the test group mentioned above comply with the applicable regulations contained in 40 CFR 86.1844-01(d)(14) including the provisions of 40 CFR Parts 85, 86 and 600. This test group also complies with California Air Resources Board, Final Regulation Order, Sections 1961.4 and 1961.3 (1962.4 and 1962.3 for zero-emission vehicles) Title 13, California Code of Regulations.

The Part 1 Application for Certification has been prepared in accordance with the standardized format recommended by EPA via its guidance document CD-14-19 (LDV/LDT/OCO/LIMO) Subject: Certification Application Reporting Guidance, dated November 24, 2014.

If you have any questions in regard to the Executive Order do not hesitate to contact Stephanie Wright at [swright@hatci.com](mailto:swright@hatci.com) or (734) 273-1904.

Sincerely,

A handwritten signature in black ink, appearing to read 'C. H. Ji', written over a horizontal line.

C. H. Ji  
General Manager  
Regulation & Certification Team2  
Hyundai Motor Company

VHYXV00.0300 - Hyundai GV60 RWD– Part 1  
Issued : 01-15-2026  
Revised :

**15.00 Other Information**


**15.01 Certification Fee Filing Form**

VHYXT00.0400– Hyundai Ioniq 9 AWD Performance – Part 1

Issued : 01-31-2026

Revised:

**15.02 Vehicle Emission Control Information (VECI) Label**

	<b>HYUNDAI MOTOR COMPANY VEHICLE EMISSION CONTROL INFORMATION</b>	
<b>Conforms to regulations:</b>	<b>2027 MY</b>	
<b>U.S.EPA: T4B0 LDT</b>	<b>OBD: N/A</b>	<b>Fuel: Electricity</b>
<b>California: ZEV PC</b>	<b>OBD: N/A</b>	<b>Fuel: Electricity</b>
<b>No adjustments needed.</b>	<b>This vehicle is certified to operate on electricity.</b>	
<b>Group: VHYXT00.0400 Evap.: N/A</b>		<b>32410-1XFD6</b>

**15.03 ORVR Safety Statement: Not Applicable**

**15.04 New Technology System Description**

Please refer to Common Section 15.04.

**15.05 Engine Oil Information : Not Applicable**

VHYXT00.0400– Hyundai Ioniq 9 AWD Performance – Part 1  
Issued : 01-31-2026  
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**16.00 California ARB Information**

**16.01 Exhaust Emission Control System (Tune-up label)**

Test Group Name	Model	Exhaust Emission Control System
VHYXT00.0400	Ioniq 9 AWD Performance	N/A

**16.02 Test Procedures**

Please refer to Common Section 16.02.03

**16.03 Fill Pipe Access Zones Statement and Specifications: Not Applicable**

VHYXT00.0400– Hyundai Ioniq 9 AWD Performance – Part 1

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laws.

## **16.04 Request for Certification**

Please refer to 14.00.

### **16.04.01 Statement of Compliance**

Please refer to Common Section 16.04.01.

### **16.04.02 Supplemental Data Sheet**

Please refer to E-cert data.

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**16.05 Emission Testing Waiver Statement : Not Applicable**

**16.06 Projected Sales**

Please refer to Common Section 13.00.

**16.07 OBD-II System Description : Not Applicable**

**16.08 New Technology System Description**

Please refer to Common Section 15.04

**16.09 Environmental Performance Label**

Pursuant to CALIFORNIA ENVIRONMENTAL PERFORMANCE LABEL SPECIFICATIONS FOR 2009 AND SUBSEQUENT MODEL YEAR PASSENGER CARS, LIGHT-DUTY TRUCKS, AND MEDIUM-DUTY PASSENGER VEHICLES (adopted May 2, 2008, last amended September 2, 2015), 2012, HYUNDAI-KIA complies Environmental Performance Label requirement by affixing the Federal Fuel Economy and Environment Label in accordance to 40 CFR Parts 85, 86, and 600 as promulgated on July 6, 2011.

**16.10 AECD General Statements: Not Applicable**

**16.11 California Warranty Compliance**

Please refer to Common Section 16.11.00.

RKMXV00.0300– Kia EV9 Long Range AWD – Part 1  
Issued : 09-14-2024  
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## **17.00 Service of Process**

Please refer to Common Section 01.00.

VHYXT00.0400– Hyundai Ioniq 9 AWD Performance – Part 1  
Issued : 01-31-2026  
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## **18.00 Attachment**

1. CSI Report

VHYXT00.0400– Hyundai Ioniq 9 AWD Performance – Part 1  
Issued : 01-31-2026  
Revised:

## Certification Summary Information Report

<b>Manufacturer</b>	Hyundai Motor Company	<b>Manufacturer Code</b>	HYX						
<b>Test Group</b>	VHYXT00.0400	<b>Evaporative/Refueling Family</b>	--						
<b>Certificate Number</b>	--	<b>CARB Executive Order #</b>	--						
<b>Certificate Issue Date</b>	--	<b>Certificate Revision Date</b>	--						
<b>Certificate Effective Date</b>	--	<b>Conditional Certificate</b>	--						
<b>CSI Revision #</b>	--	<b>CSI Submission/Revision Date</b>	01/26/2026 08:42:21 PM						
<b>Model Year</b>	2027								
<b>Test Group Information</b>									
<b>CSI Type</b>	New	<b>Running Change Reference Number</b>	--						
<b>GHG Exempt Status</b>	Not Exempt								
<b>Drive Sources and Fuel(s)</b>									
<b>Drive Source #1:</b>	Electric Motor								
	<table border="1"> <thead> <tr> <th>Fuel</th> <th>Basic Fuel Metering System</th> <th>Lean Burn Strategy Indicator</th> </tr> </thead> <tbody> <tr> <td>Electricity</td> <td>--</td> <td>--</td> </tr> </tbody> </table>			Fuel	Basic Fuel Metering System	Lean Burn Strategy Indicator	Electricity	--	--
Fuel	Basic Fuel Metering System	Lean Burn Strategy Indicator							
Electricity	--	--							
<b>Hybrid Indicator</b>	No								
<b>Multiple Fuel Storage</b>	--	<b>Rechargeable Energy Storage System Indicator</b>	Yes						
<b>Multiple Fuel Combustion</b>	--	<b>Off-board Charge Capable Indicator</b>	Yes						
<b>Fuel Cell Indicator</b>	No	<b>EPA Vehicle Class</b>	LDT4						
<b>Federal Clean Fuel Vehicle</b>	No	<b>Federal Clean Fuel Vehicle Standard</b>	--						
<b>Federal Clean Fuel Vehicle ILEV</b>	--	<b>California Partial Zero Emissions Vehicle Indicator</b>	No						
<b>Durability Group Name</b>	VHYXEEENN400	<b>Durability Group Equivalency Factor</b>	1.0						
<b>Reduced Fee Test Group</b>	No	<b>Certification Region Code(s)</b>	FA, CA						
<b>Complies with HD GHG 2b/3 regulations?</b>	No								
<b>Introduction into Commerce Date</b>	--	<b>CAP2000 Conditional Certificate?</b>	N/A						
<b>Independent Commercial Importer?</b>	--	<b>Alternative Fuel Converter Certificate?</b>	--						
<b>SFTP Federal Composite Compliance Identifier</b>	Not Applicable	<b>SFTP Tier 2 Composite CO Option</b>	No						
<b>SFTP LEV-III Composite Compliance Indicator</b>	No								
<b>OBD Compliance Type</b>	CARB	<b>OBD Demonstration Vehicle Test Group</b>	VHYXT00.0400						
<b>Test Group OBD Compliance Level</b>	Full - no deficiencies	<b>Number of Test Group OBD Deficiencies</b>	0						
<b>OBD Deficiencies Comments</b>	Battery Electric Vehicle is exempted from OBD compliance.								
<b>Mfr Test Group Comments</b>	This vehicle complies with the Tier4 Bin 0 emission standards for the 2027 model year.								
<b>Mfr Exhaust / Evap Standards Comments</b>	--								

### Certification Summary Information Report

<b>Test Group</b>		VHYXT00.0400			<b>Evaporative/Refueling Family</b>		--				
<b>Models Covered by this Certificate</b>											
Carline Manufacturer	Division	Carline	Certification Region Code(s)	Drive System	Trans - Type	- # of Gears	Trans - Lockup				
Hyundai Motor Company	1 - HYUNDAI MOTOR COMPANY	362 - Ioniq 9 AWD Performance	Federal	All Wheel Drive	Automatic	1	No				
Hyundai Motor Company	1 - HYUNDAI MOTOR COMPANY	362 - Ioniq 9 AWD Performance	California + CAA Section 177 states	All Wheel Drive	Automatic	1	No				
<b>Engine Description</b>											
<b>Hybrid Type</b>		--			<b>Hybrid Description</b>		--				
<b>Engine Type</b>		--			<b>Mfr Engine Description</b>		--				
<b>Engine Block Arrangement</b>		--			<b>Mfr Engine Block Arrangement Description</b>		--				
<b>Camless Valvetrain Indicator</b>		--			<b>Oil Viscosity/Classification</b>						
<b>Number of Cylinders/Rotors</b>		--			<b>Mechanically Variable Compression Ratio Indicator</b>		--				
<b>After Treatment Device(s) (ATD)</b>											
<b>Mfr After Treatment Device (ATD) Comments</b>		--									
<b>Direct Ozone Reduction (DOR) Device</b>		--									
<b>Mfr Emission Control Device Comments</b>		--									
<b>Official Test Numbers</b>											
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		--	--	--	--	--	--	--	--	--	--

## Certification Summary Information Report

<b>Test Group</b>	VHYXT00.0400	<b>Evaporative/Refueling Family</b>	--
<b>Hybrid Electric Vehicle And Fuel Cell Information</b>			
<b>Rechargeable Energy Storage System</b>	Battery(s)	<b>Rechargeable Energy Storage System, if Other</b>	--
<b>Battery Type</b>	Lithium Ion	<b>Number of Battery Packs</b>	1
<b>Total Voltage of Battery Packs</b>	610	<b>Battery Energy Capacity</b>	180.9
<b>Battery Specific Energy</b>	176.4	<b>Battery Charger Type</b>	Both
<b>Number of Capacitors</b>	--	<b>Capacitor Rating (In Farads)</b>	--
<b>Mfr Capacitor Comments</b>	--		
<b>Hydraulic System Description</b>	--		
<b>Regenerative Braking Type</b>	Electrical Regen Brake		
<b>Regenerative Braking Source</b>	Both	<b>Driver Controlled Regenerative Braking</b>	Yes
<b>Mfr Regenerative Braking Description</b>	--		
<b>Drive Motor(s)/Generator(s)</b>	2		
<b>Motor/Generator Type 1</b>	PMSM	<b>Rated Motor/Generator Power</b>	157
<b>Motor/Generator Type 2</b>	PMSM	<b>Rated Motor/Generator Power</b>	157
<b>Mfr Fuel Cell Description</b>	--		
<b>Fuel Cell On-Board H2 Storage Capacity (kg)</b>	--	<b>Usable H2 Fill Capacity (kg)</b>	--
<b>Mfr Hybrid Electric/ Electric Vehicle Comments</b>	PMSM : Permanent Magnet Synchronous Motor		

### Certification Summary Information Report

<b>Test Group</b>	VHYXT00.0400	<b>Evaporative/Refueling Family</b>	--
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**Emission Data Vehicle Information**

Vehicle ID / Configuration	ME1-AU5EPER061A / 0	Manufacturer Vehicle Configuration Number	0
Original Test Group Name	THYXV00.0400	Original Evaporative/Refueling Family	--
Original Test Vehicle Model Year	2026		
<b>Vehicle Model</b>			
Represented Test Vehicle Make	Hyundai	Represented Test Vehicle Model	Ioniq 9 AWD Performance

**Leak Family Details**

Leak Family Identifier	--	Leak Family Name	--
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**Drive Sources and Fuel System Details**

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

Hybrid Indicator	No	Multiple Fuel Combustion	--
Multiple Fuel Storage	--	Rechargeable Energy Storage System Indicator	Yes
Fuel Cell Indicator	No	Rechargeable Energy Storage System, if 'Other'	--
Rechargeable Energy Storage System	Battery(s)		
Off-board charge Capable Indicator	Yes	Odometer Correction Factor	0.9983
Odometer Correction -- Initial	0	+ = System Miles is equal to (Test odometer reading * Correction factor) + Initial system miles	
Odometer Correction Sign			
Odometer Correction Units	Miles	Rated Horsepower	422
Engine Code	EM34	Air Aspiration Method, if 'Other'	
Displacement (liters)	0.001	Air Aspiration Device Configuration	--
Air Aspiration Method	Naturally Aspirated	Drive Mode While Testing	All Wheel Drive
Number of Air Aspiration Devices	--	Aged Emission Components	4,000 (mi)
Charge Air Cooler Type	--	Equivalent Test Weight (pounds)	6500
Shift Indicator Light Usage	Not equipped	N/V Ratio	147.2
Curb Weight (lbs)	6008	# of Transmission Gears	1
GVWR (lbs)	7319	Creeper Gear	No
Axle Ratio	4.68		
Transmission Type	Automatic		
Transmission Lockup	No		

**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	42.55	0.13241	0.025578	-3.532	-0.35953	0.027584	15.1

**Emission Control Device Comments**      This vehicle have two motors (front : 211hp / rear : 211hp)

### Certification Summary Information Report

Test Group	VHYXT00.0400	Evaporative/Refueling Family	--
<b>Manufacturer Test Vehicle Comments</b>	Ioniq 9 AWD Performance 21in. This vehicle have two different gear ration for front motors and rear motors. (front 2.263, Rear 2.810). NV ration was calculated by Rear motor ration. TYPO of NV Ratio is corrected. Vehicle model name was updated.		

**Certification Summary Information Report**

<b>Test Group</b>	VHYXT00.0400	<b>Evaporative/Refueling Family</b>	--
<b>Test #</b>	<b>THYX10087865</b>	<b>Test Procedure</b>	<b>77 - Multi-Cycle Test (MCT)</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	62 - Electricity
<b>Test Date</b>	08/22/2024	<b>Fuel</b>	Electricity
<b>Fuel Batch ID</b>	--	<b>Fuel Calibration Number</b>	--
<b>Vehicle Class</b>	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	<b>DF Type</b>	Mfr. Determined
<b>Verify Test Lab ID</b>	772-1, Jangduck-Dong		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	2137	<b>Odometer Units</b>	M
<b>4WD Test Dyno</b>	Yes	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	Yes		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	<b>Road Speed Fan Usage</b>	Yes

**PHEV/EV Charge Depleting Test Information**

<b>Recharge Event Voltage</b>	220	<b>Recharge Event Energy (kiloWatt-hours)</b>	121.577
<b>Charge Depleting Range (Calculated miles)</b>	487.261	<b>Charge Depleting Range (Actual miles)</b>	487.261
<b>Charge Depleting Range Highway (Calculated miles)</b>	422.712	<b>Derived 5-Cycle Coefficient Model Year</b>	--
<b>All Electric Range Unadjusted (miles)</b>	--	<b>Equivalent All Electric Range (miles)</b>	487.261
<b>Number of Charge Depleting Bags/Phases Conducted</b>	8	<b>Transition Bag/Phase Number</b>	--

**Charge Depleting Bag/Phase #1**

<b>Test Result/Emission Name</b>	<b>Unrounded Test Result</b>
Actual Distance Driven (miles)	7.442
Carbon Monoxide	0
Carbon-Related Exhaust Emissions	0
Drive Trace Absolute Speed Change Rating	0.11
Drive Trace Energy Economy Rating	-1.27
Drive Trace Inertia Work Ratio Rating	-1.59
Integrated DC KW-HRS	1.82167
Manufacturer Fuel Economy	24.478218

**Charge Depleting Bag/Phase #2**

## Certification Summary Information Report

Test Group	VHYXT00.0400	Evaporative/Refueling Family	--																		
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<b>Charge Depleting Bag/Phase #5</b>																					

## Certification Summary Information Report

<b>Test Group</b>	VHYXT00.0400	Evaporative/Refueling Family	--
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Test Result/Emission Name	Unrounded Test Result
Actual Distance Driven (miles)	7.459
Carbon Monoxide	0
Carbon-Related Exhaust Emissions	0
Drive Trace Absolute Speed Change Rating	1.19
Drive Trace Energy Economy Rating	-1.43
Drive Trace Inertia Work Ratio Rating	-1.41
Integrated DC KW-HRS	1.61993
Manufacturer Fuel Economy	21.717804

**Charge Depleting Bag/Phase #6**

Test Result/Emission Name	Unrounded Test Result
Actual Distance Driven (miles)	10.251
Carbon Monoxide	0
Carbon-Related Exhaust Emissions	0
Drive Trace Absolute Speed Change Rating	1.17
Drive Trace Energy Economy Rating	-0.16
Drive Trace Inertia Work Ratio Rating	1.05
Integrated DC KW-HRS	2.60127
Manufacturer Fuel Economy	25.375807

**Charge Depleting Bag/Phase #7**

Test Result/Emission Name	Unrounded Test Result
Actual Distance Driven (miles)	7.445
Carbon Monoxide	0
Carbon-Related Exhaust Emissions	0
Drive Trace Absolute Speed Change Rating	0.33
Drive Trace Energy Economy Rating	-1.62
Drive Trace Inertia Work Ratio Rating	-1.73
Integrated DC KW-HRS	1.65743
Manufacturer Fuel Economy	22.262364

**Charge Depleting Bag/Phase #8**

## Certification Summary Information Report

Test Group	VHYXT00.0400	Evaporative/Refueling Family	--
	<b>Test Result/Emission Name</b>	<b>Unrounded Test Result</b>	
	Actual Distance Driven (miles)	30.753	
	Carbon Monoxide	0	
	Carbon-Related Exhaust Emissions	0	
	Drive Trace Absolute Speed Change Rating	25.9	
	Drive Trace Energy Economy Rating	0.12	
	Drive Trace Inertia Work Ratio Rating	41.83	
	Integrated DC KW-HRS	10.11588	
	Manufacturer Fuel Economy	32.893962	
<b>Manufacturer Test Comments</b>	Ioniq 9 AWD Performance 21in MCT		

### Certification Summary Information Report

Test Group		VHYXT00.0400				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
Fed	150,000 miles	Federal Tier 3 Bin 0	CO	0.0	--	--	--	0	--	0	0	Pass
Fed	150,000 miles	Federal Tier 3 Bin 0	CO	0.0	--	--	--	0	--	0	0	Pass
Fed	150,000 miles	Federal Tier 3 Bin 0	CO	0.0	--	--	--	0	--	0	0	Pass
Fed	150,000 miles	Federal Tier 3 Bin 0	CO	0.0	--	--	--	0	--	0	0	Pass
Fed	150,000 miles	Federal Tier 3 Bin 0	CO	0.0	--	--	--	0	--	0	0	Pass
Fed	150,000 miles	Federal Tier 3 Bin 0	CO	0.0	--	--	--	0	--	0	0	Pass
Fed	150,000 miles	Federal Tier 3 Bin 0	CO	0.0	--	--	--	0	--	0	0	Pass
Fed	150,000 miles	Federal Tier 3 Bin 0	CREE	0	--	--	--	0	--	0	--	--
Fed	150,000 miles	Federal Tier 3 Bin 0	CREE	0	--	--	--	0	--	0	--	--
Fed	150,000 miles	Federal Tier 3 Bin 0	CREE	0	--	--	--	0	--	0	--	--
Fed	150,000 miles	Federal Tier 3 Bin 0	CREE	0	--	--	--	0	--	0	--	--
Fed	150,000 miles	Federal Tier 3 Bin 0	CREE	0	--	--	--	0	--	0	--	--
Fed	150,000 miles	Federal Tier 3 Bin 0	CREE	0	--	--	--	0	--	0	--	--
Fed	150,000 miles	Federal Tier 3 Bin 0	CREE	0	--	--	--	0	--	0	--	--
Fed	150,000 miles	Federal Tier 3 Bin 0	CREE	0	--	--	--	0	--	0	--	--
CA	150,000 miles	California ZEV	CO	0.0	--	--	--	0	--	0	0	Pass
CA	150,000 miles	California ZEV	CO	0.0	--	--	--	0	--	0	0	Pass
CA	150,000 miles	California ZEV	CO	0.0	--	--	--	0	--	0	0	Pass
CA	150,000 miles	California ZEV	CO	0.0	--	--	--	0	--	0	0	Pass
CA	150,000 miles	California ZEV	CO	0.0	--	--	--	0	--	0	0	Pass
CA	150,000 miles	California ZEV	CO	0.0	--	--	--	0	--	0	0	Pass
CA	150,000 miles	California ZEV	CO	0.0	--	--	--	0	--	0	0	Pass
CA	150,000 miles	California ZEV	CO	0.0	--	--	--	0	--	0	0	Pass
CA	150,000 miles	California ZEV	CREE	0	--	--	--	0	--	0	--	--
CA	150,000 miles	California ZEV	CREE	0	--	--	--	0	--	0	--	--

### Certification Summary Information Report

<b>Test Group</b>	VHYXT00.0400	<b>Evaporative/Refueling Family</b>	--
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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
CA	150,000 miles	California ZEV	CREE	0	--	--	--	0	--	0	--	--
CA	150,000 miles	California ZEV	CREE	0	--	--	--	0	--	0	--	--
CA	150,000 miles	California ZEV	CREE	0	--	--	--	0	--	0	--	--
CA	150,000 miles	California ZEV	CREE	0	--	--	--	0	--	0	--	--
CA	150,000 miles	California ZEV	CREE	0	--	--	--	0	--	0	--	--
CA	150,000 miles	California ZEV	CREE	0	--	--	--	0	--	0	--	--

### Certification Summary Information Report

<b>Test Group</b>	VHYXT00.0400	<b>Evaporative/Refueling Family</b>	--
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**Emission Data Vehicle Information**

Vehicle ID / Configuration	ME1-KU5EPER060A / 0	Manufacturer Vehicle Configuration Number	0
Original Test Group Name	THYXV00.0400	Original Evaporative/Refueling Family	--
Original Test Vehicle Model Year	2026		
<b>Vehicle Model</b>			
Represented Test Vehicle Make	Hyundai	Represented Test Vehicle Model	Ioniq 9 AWD Performance

**Leak Family Details**

Leak Family Identifier	--	Leak Family Name	--
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**Drive Sources and Fuel System Details**

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

Hybrid Indicator	No	<b>Multiple Fuel Combustion</b>	--
Multiple Fuel Storage	--	<b>Rechargeable Energy Storage System Indicator</b>	Yes
Fuel Cell Indicator	No	<b>Rechargeable Energy Storage System, if 'Other'</b>	--
Rechargeable Energy Storage System	Battery(s)		
Off-board charge Capable Indicator	Yes	<b>Odometer Correction Factor</b>	0.9984
Odometer Correction -- Initial	0	+ = System Miles is equal to (Test odometer reading * Correction factor) + Initial system miles	
Odometer Correction Sign			
Odometer Correction Units	Miles	<b>Rated Horsepower</b>	422
Engine Code	EM34	<b>Air Aspiration Method, if 'Other'</b>	
Displacement (liters)	0.001	<b>Air Aspiration Device Configuration</b>	--
Air Aspiration Method	Naturally Aspirated	<b>Drive Mode While Testing</b>	All Wheel Drive
Number of Air Aspiration Devices	--	<b>Aged Emission Components</b>	4,000 (mi)
Charge Air Cooler Type	--	<b>Equivalent Test Weight (pounds)</b>	6500
Shift Indicator Light Usage	Not equipped	<b>N/V Ratio</b>	147.6
Curb Weight (lbs)	6016	<b># of Transmission Gears</b>	1
GVWR (lbs)	7319	<b>Creeper Gear</b>	No
Axle Ratio	4.68		
Transmission Type	Automatic		
Transmission Lockup	No		

**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	44.087	0.25209	0.023769	1.208	-0.10086	0.023819	15.5

**Emission Control Device Comments**      This vehicle have two motors (front : 211hp / rear : 211hp)

### Certification Summary Information Report

Test Group	VHYXT00.0400	Evaporative/Refueling Family	--
<b>Manufacturer Test Vehicle Comments</b>	Only for CANADA market (Ioniq 9 AWD Performance 21in.) This vehicle have two different gear ratio for front and rear motors. (front 2.263, Rear 2.810). NV ratio was calculated by Rear motor ratio.		

**Certification Summary Information Report**

<b>Test Group</b>	VHYXT00.0400	<b>Evaporative/Refueling Family</b>	--
<b>Test #</b>	<b>THYX10088302</b>	<b>Test Procedure</b>	<b>77 - Multi-Cycle Test (MCT)</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	62 - Electricity
<b>Test Date</b>	11/03/2024	<b>Fuel</b>	Electricity
<b>Fuel Batch ID</b>	--	<b>Fuel Calibration Number</b>	--
<b>Vehicle Class</b>	LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)	<b>DF Type</b>	Mfr. Determined
<b>Verify Test Lab ID</b>	772-1, Jangduck-Dong		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	2843	<b>Odometer Units</b>	M
<b>4WD Test Dyno</b>	Yes	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	Yes		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	<b>Road Speed Fan Usage</b>	Yes

**PHEV/EV Charge Depleting Test Information**

<b>Recharge Event Voltage</b>	220	<b>Recharge Event Energy (kiloWatt-hours)</b>	124.25
<b>Charge Depleting Range (Calculated miles)</b>	475.468	<b>Charge Depleting Range (Actual miles)</b>	475.468
<b>Charge Depleting Range Highway (Calculated miles)</b>	415.481	<b>Derived 5-Cycle Coefficient Model Year</b>	--
<b>All Electric Range Unadjusted (miles)</b>	--	<b>Equivalent All Electric Range (miles)</b>	475.468
<b>Number of Charge Depleting Bags/Phases Conducted</b>	8	<b>Transition Bag/Phase Number</b>	--

**Charge Depleting Bag/Phase #1**

Test Result/Emission Name	Unrounded Test Result
Actual Distance Driven (miles)	7.451
Carbon Monoxide	0
Carbon-Related Exhaust Emissions	0
Drive Trace Absolute Speed Change Rating	-4.06
Drive Trace Energy Economy Rating	-1.25
Drive Trace Inertia Work Ratio Rating	-5.07
Integrated DC KW-HRS	1.85016
Manufacturer Fuel Economy	24.831

**Charge Depleting Bag/Phase #2**

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Manufacturer Fuel Economy	26.2619																				
<b>Charge Depleting Bag/Phase #7</b>																					
<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>7.441</td> </tr> <tr> <td>Carbon Monoxide</td> <td>0</td> </tr> <tr> <td>Carbon-Related Exhaust Emissions</td> <td>0</td> </tr> <tr> <td>Drive Trace Absolute Speed Change Rating</td> <td>-1.82</td> </tr> <tr> <td>Drive Trace Energy Economy Rating</td> <td>-0.42</td> </tr> <tr> <td>Drive Trace Inertia Work Ratio Rating</td> <td>-1.32</td> </tr> <tr> <td>Integrated DC KW-HRS</td> <td>1.72001</td> </tr> <tr> <td>Manufacturer Fuel Economy</td> <td>23.1153</td> </tr> </tbody> </table>				Test Result/Emission Name	Unrounded Test Result	Actual Distance Driven (miles)	7.441	Carbon Monoxide	0	Carbon-Related Exhaust Emissions	0	Drive Trace Absolute Speed Change Rating	-1.82	Drive Trace Energy Economy Rating	-0.42	Drive Trace Inertia Work Ratio Rating	-1.32	Integrated DC KW-HRS	1.72001	Manufacturer Fuel Economy	23.1153
Test Result/Emission Name	Unrounded Test Result																				
Actual Distance Driven (miles)	7.441																				
Carbon Monoxide	0																				
Carbon-Related Exhaust Emissions	0																				
Drive Trace Absolute Speed Change Rating	-1.82																				
Drive Trace Energy Economy Rating	-0.42																				
Drive Trace Inertia Work Ratio Rating	-1.32																				
Integrated DC KW-HRS	1.72001																				
Manufacturer Fuel Economy	23.1153																				
<b>Charge Depleting Bag/Phase #8</b>																					

## Certification Summary Information Report

Test Group	VHYXT00.0400	Evaporative/Refueling Family	--
	<b>Test Result/Emission Name</b>	<b>Unrounded Test Result</b>	
	Actual Distance Driven (miles)	21.56	
	Carbon Monoxide	0	
	Carbon-Related Exhaust Emissions	0	
	Drive Trace Absolute Speed Change Rating	10.22	
	Drive Trace Energy Economy Rating	0.08	
	Drive Trace Inertia Work Ratio Rating	20.42	
	Integrated DC KW-HRS	7.40002	
	Manufacturer Fuel Economy	34.3229	
<b>Manufacturer Test Comments</b>	This test results only for CANADA market vehicle of Ioniq 9 AWD Performance 21in MCT. Data over '99.99' have been set as '99.99' due to technical restrictions, but have actually obtained the following results: -> Charge Depleting Bag / Phase #4 DT-ASCR = 114.72, DT-IWRR = 229.42		

### Certification Summary Information Report

Test Group		VHYXT00.0400				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
Fed	150,000 miles	Federal Tier 3 Bin 0	CO	0.0	--	--	--	0	--	0	0	Pass
Fed	150,000 miles	Federal Tier 3 Bin 0	CO	0.0	--	--	--	0	--	0	0	Pass
Fed	150,000 miles	Federal Tier 3 Bin 0	CO	0.0	--	--	--	0	--	0	0	Pass
Fed	150,000 miles	Federal Tier 3 Bin 0	CO	0.0	--	--	--	0	--	0	0	Pass
Fed	150,000 miles	Federal Tier 3 Bin 0	CO	0.0	--	--	--	0	--	0	0	Pass
Fed	150,000 miles	Federal Tier 3 Bin 0	CO	0.0	--	--	--	0	--	0	0	Pass
Fed	150,000 miles	Federal Tier 3 Bin 0	CO	0.0	--	--	--	0	--	0	0	Pass
Fed	150,000 miles	Federal Tier 3 Bin 0	CREE	0	--	--	--	0	--	0	--	--
Fed	150,000 miles	Federal Tier 3 Bin 0	CREE	0	--	--	--	0	--	0	--	--
Fed	150,000 miles	Federal Tier 3 Bin 0	CREE	0	--	--	--	0	--	0	--	--
Fed	150,000 miles	Federal Tier 3 Bin 0	CREE	0	--	--	--	0	--	0	--	--
Fed	150,000 miles	Federal Tier 3 Bin 0	CREE	0	--	--	--	0	--	0	--	--
Fed	150,000 miles	Federal Tier 3 Bin 0	CREE	0	--	--	--	0	--	0	--	--
Fed	150,000 miles	Federal Tier 3 Bin 0	CREE	0	--	--	--	0	--	0	--	--
Fed	150,000 miles	Federal Tier 3 Bin 0	CREE	0	--	--	--	0	--	0	--	--
CA	150,000 miles	California ZEV	CO	0.0	--	--	--	0	--	0	0	Pass
CA	150,000 miles	California ZEV	CO	0.0	--	--	--	0	--	0	0	Pass
CA	150,000 miles	California ZEV	CO	0.0	--	--	--	0	--	0	0	Pass
CA	150,000 miles	California ZEV	CO	0.0	--	--	--	0	--	0	0	Pass
CA	150,000 miles	California ZEV	CO	0.0	--	--	--	0	--	0	0	Pass
CA	150,000 miles	California ZEV	CO	0.0	--	--	--	0	--	0	0	Pass
CA	150,000 miles	California ZEV	CO	0.0	--	--	--	0	--	0	0	Pass
CA	150,000 miles	California ZEV	CO	0.0	--	--	--	0	--	0	0	Pass
CA	150,000 miles	California ZEV	CREE	0	--	--	--	0	--	0	--	--
CA	150,000 miles	California ZEV	CREE	0	--	--	--	0	--	0	--	--

### Certification Summary Information Report

Test Group		VHYXT00.0400				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
CA	150,000 miles	California ZEV	CREE	0	--	--	--	0	--	0	--	--
CA	150,000 miles	California ZEV	CREE	0	--	--	--	0	--	0	--	--
CA	150,000 miles	California ZEV	CREE	0	--	--	--	0	--	0	--	--
CA	150,000 miles	California ZEV	CREE	0	--	--	--	0	--	0	--	--
CA	150,000 miles	California ZEV	CREE	0	--	--	--	0	--	0	--	--
CA	150,000 miles	California ZEV	CREE	0	--	--	--	0	--	0	--	--

<b>Fuel Properties</b>
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### Certification Summary Information Report

<b>Test Group</b>		VHYXT00.0400			Evaporative/Refueling Family			--		
<b>Consolidated List of Standards</b>										
<b>Exhaust Standards</b>										
<b>Cert Region</b>		Federal			<b>Cert/In-Use Code</b>			Cert		
<b>Vehicle Class</b>		LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)			<b>Standard Level</b>			Federal Tier 3 Bin 0		
<b>Fuel</b>		Electricity			<b>Test Procedure</b>			Multi-Cycle Test (MCT)		
<b>Useful Life</b>	<b>Emission Name</b>	<b>Rounded Result</b>	<b>RAF</b>	<b>NMOG / NMHC</b>	<b>Upward Diesel Adjustment Factor</b>	<b>Downward Diesel Adjustment Factor</b>	<b>Mult DF</b>	<b>Add DF</b>	<b>Std</b>	
150,000 miles	CO	--	--	--	--	--	--	0	0	
150,000 miles	CREE	--	--	--	--	--	--	0	0	
<b>Exhaust Standards</b>										
<b>Cert Region</b>		California + CAA Section 177 states			<b>Cert/In-Use Code</b>			Cert		
<b>Vehicle Class</b>		LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)			<b>Standard Level</b>			California ZEV		
<b>Fuel</b>		Electricity			<b>Test Procedure</b>			Multi-Cycle Test (MCT)		
<b>Useful Life</b>	<b>Emission Name</b>	<b>Rounded Result</b>	<b>RAF</b>	<b>NMOG / NMHC</b>	<b>Upward Diesel Adjustment Factor</b>	<b>Downward Diesel Adjustment Factor</b>	<b>Mult DF</b>	<b>Add DF</b>	<b>Std</b>	
150,000 miles	CO	--	--	--	--	--	--	0	0	
150,000 miles	CREE	--	--	--	--	--	--	0	0	
<b>Exhaust Standards</b>										
<b>Cert Region</b>		California + CAA Section 177 states			<b>Cert/In-Use Code</b>			Cert		
<b>Vehicle Class</b>		LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)			<b>Standard Level</b>			California ZEV		
<b>Fuel</b>		Electricity			<b>Test Procedure</b>			CVS 75 and later (w/o can. load)		
<b>Useful Life</b>	<b>Emission Name</b>	<b>Rounded Result</b>	<b>RAF</b>	<b>NMOG / NMHC</b>	<b>Upward Diesel Adjustment Factor</b>	<b>Downward Diesel Adjustment Factor</b>	<b>Mult DF</b>	<b>Add DF</b>	<b>Std</b>	
150,000 miles	CO	--	--	--	--	--	--	0	0	

### Certification Summary Information Report

<b>Test Group</b>		VHYXT00.0400			<b>Evaporative/Refueling Family</b>			--	
<b>Cert Region</b>		Federal			<b>Cert/In-Use Code</b>			Cert	
<b>Vehicle Class</b>		LDT4 (ALVW > 5750, LVW 0-3750, GVW > 6000)			<b>Standard Level</b>			Federal Tier 3 Bin 0	
<b>Fuel</b>		Electricity			<b>Test Procedure</b>			CVS 75 and later (w/o can. load)	
<b>Useful Life</b>	<b>Emission Name</b>	<b>Rounded Result</b>	<b>RAF</b>	<b>NMOG / NMHC</b>	<b>Upward Diesel Adjustment Factor</b>	<b>Downward Diesel Adjustment Factor</b>	<b>Mult DF</b>	<b>Add DF</b>	<b>Std</b>
150,000 miles	CO	--	--	--	--	--	--	0	0

## Certification Summary Information Report

Test Group	VHYXT00.0400	Evaporative/Refueling Family	--
<b>Glossary</b>			
<b>Useful Life</b>			
4	4,000 miles	120	120,000 miles
50	50,000 miles	150	150,000 miles
100	100,000 miles		
<b>Emission Name</b>			
HC-TOTAL	Total Hydrocarbon	AS-VOLT	Average System Voltage
CO	Carbon Monoxide	CO2 BAG 1	Bag 1 Carbon Dioxide
CO2	Carbon dioxide	CO2 BAG 2	Bag 2 Carbon Dioxide
CREE	Carbon-Related Exhaust Emissions	CO2 BAG 3	Bag 3 Carbon Dioxide
OPT-CREE	Optional Carbon-Related Exhaust Emissions	CO2 BAG 4	Bag 4 Carbon Dioxide
NOX	Nitrogen Oxide	NMOG+NOX	Non-methane organic gases plus Nitrogen Oxides
PM	Particulate Matter	NMOG+NOX-COMP	SFTP Composite Non-methane Organic Gases + Nitrogen Oxides
PM-COMP	SFTP Composite Particulate Matter	DT-IWRR	Drive Trace Inertia Work Ratio Rating
HC-NM	Non-methane Hydrocarbon	DT-ASCR	Drive Trace Absolute Speed Change Rating
OMHCE	Organic material Hydrocarbon Equivalent	DT-EER	Drive Trace Energy Economy Rating
OMNMHCE	Organic material non-methane HC equivalent	COMB-CREE	Combined Carbon-Related Exhaust Emissions
NMOG	Non-methane organic gases	COMB-OPT-CREE	Combined Optional Carbon-Related Exhaust Emissions
HCHO	Formaldehyde	HC-TOTAL-EQUIV	Total Hydrocarbon equivalent - Evap only
H3C2HO	Acetaldehyde	METHANE-COMB	Combined CH4 for HD 2b/3 vehicles only
HC-NM+NOX	SFTP Non-methane Hydrocarbon + Nitrogen Oxides for US06 or SC03	N2O-COMB	Combined Nitrous Oxide for HD 2b/3 vehicles only
HC-NM+NOX-COMP	SFTP Composite Non-methane Hydrocarbon + Nitrogen Oxides	LEAK-DIA	Effective Leak Diameter (inches)
CO-COMP	SFTP Composite Carbon Monoxide	LEAK-GAS CAP	Gas Cap Leakage (cc/min)
ETHANOL	C2H5OH - Ethanol	CO2-COMB	Combined Carbon Dioxide for HD 2b/3 Vehicles Only
FE BAG 1	Bag 1 Fuel Economy	KW-HRS	Integrated DC KW-HRS
FE BAG 2	Bag 2 Fuel Economy	CH4 BAG 1	Bag 1 Methane
FE BAG 3	Bag 3 Fuel Economy	CH4 BAG 2	Bag 2 Methane
FE BAG 4	Bag 4 Fuel Economy	CH4 BAG 3	Bag 3 Methane
MFR FE	Manufacturer Fuel Economy	CH4 BAG 4	Bag 4 Methane
HC	Hydrocarbon for Running Loss and ORVR	CO BAG 1	Bag 1 Carbon Monoxide
METHANE	CH4 - Methane	CO BAG 2	Bag 2 Carbon Monoxide
METHANOL	CH3OH - Methanol	CO BAG 3	Bag 3 Carbon Monoxide
N2O	Nitrous Oxide	CO BAG 4	Bag 4 Carbon Monoxide
SPITBACK	Spitback Hydrocarbon in grams	NMOG BAG 1	Bag 1 Non-methane organic gases
AMP-HRS	Integrated Amp-hours	NMOG BAG 2	Bag 2 Non-methane organic gases
START-SOC	System Start State of Charge Watt-hours	NMOG BAG 3	Bag 3 Non-methane organic gases
END-SOC	System End State of Charge Watt-hours	NMOG BAG 4	Bag 4 Non-methane organic gases
ACT-DISTANCE	Actual Distance Driven (miles)		

## Certification Summary Information Report

Test Group	VHYXT00.0400	Evaporative/Refueling Family	
CA	California + CAA Section 177 states	FA	Federal
<b>Exhaust Emission Standard Level</b>			
B1	Federal Tier 2 Bin 1	T3B160	Federal Tier 3 Bin 160
B2	Federal Tier 2 Bin 2	T3B125	Federal Tier 3 Bin 125
B3	Federal Tier 2 Bin 3	T3B110	Federal Tier 3 Transitional Bin 110
B4	Federal Tier 2 Bin 4	T3B85	Federal Tier 3 Transitional Bin 85
B5	Federal Tier 2 Bin 5	T3SULEV30	Federal Tier 3 Transitional LEV-II SULEV30 Carryover
B6	Federal Tier 2 Bin 6	T3B70	Federal Tier 3 Bin 70
B7	Federal Tier 2 Bin 7	T3B50	Federal Tier 3 Bin 50
B8	Federal Tier 2 Bin 8	T3B30	Federal Tier 3 Bin 30
B9	Federal Tier 2 Bin 9	T3B20	Federal Tier 3 Bin 20
B10	Federal Tier 2 Bin 10	T3B0	Federal Tier 3 Bin 0
B11	Federal Tier 2 Bin 11	HDV2B395	Federal Tier 3 HD Class 2b Transitional Bin 395
HDV1	HDV1 (Federal HD chassis Class 2b GVW 8501-10000)	HDV2B340	Federal Tier 3 HD Class 2b Transitional Bin 340
HDV2	HDV2 (Federal HD chassis Class 3 GVW 10001-14000)	HDV2B250	Federal Tier 3 HD Class 2b Bin 250
L2	California LEV-II LEV	HDV2B200	Federal Tier 3 HD Class 2b Bin 200
L2OP	California LEV-II LEV Optional	HDV2B170	Federal Tier 3 HD Class 2b Bin 170
U2	California LEV-II ULEV	HDV2B150	Federal Tier 3 HD Class 2b Bin 150
S2	California LEV-II SULEV	HDV2B0	Federal Tier 3 HD Class 2b Bin 0
ZEV	California ZEV	HDV3B630	Federal Tier 3 HD Class 3 Transitional Bin 630
OT	Other	HDV3B570	Federal Tier 3 HD Class 3 Transitional Bin 570
T1	Federal Tier 1	HDV3B400	Federal Tier 3 HD Class 3 Bin 400
PZEV	California PZEV	HDV3B270	Federal Tier 3 HD Class 3 Bin 270
L2LEV160	California LEV-II LEV160	HDV3B230	Federal Tier 3 HD Class 3 Bin 230
L2ULEV125	California LEV-II ULEV125	HDV3B200	Federal Tier 3 HD Class 3 Bin 200
L2SULEV30	California LEV-II SULEV30	HDV3B0	Federal Tier 3 HD Class 3 Bin 0
L2LEV395	California LEV-II LEV395	L4SULEV100	California LEV-IV SULEV100
L2ULEV340	California LEV-II ULEV340	L4SULEV125	California LEV-IV SULEV125
L2LEV630	California LEV-II LEV630	L4SULEV15	California LEV-IV SULEV15
L2ULEV570	California LEV-II ULEV570	L4SULEV150	California LEV-IV SULEV150
L3LEV160	California LEV-III LEV160	L4SULEV170	California LEV-IV SULEV170
L3ULEV125	California LEV-III ULEV125	L4SULEV175	California LEV-IV SULEV175
L3ULEV70	California LEV-III ULEV70	L4SULEV20	California LEV-IV SULEV20
L3ULEV50	California LEV-III ULEV50	L4SULEV200	California LEV-IV SULEV200
L3SULEV30	California LEV-III SULEV30	L4SULEV230	California LEV-IV SULEV230
L3SULEV20	California LEV-III SULEV20	L4SULEV25	California LEV-IV SULEV25
L3LEV395	California LEV-III LEV395	L4SULEV30	California LEV-IV SULEV30
L3ULEV340	California LEV-III ULEV340	L4SULEV75	California LEV-IV SULEV75
L3ULEV250	California LEV-III ULEV250	L4SULEV85	California LEV-IV SULEV85
L3ULEV200	California LEV-III ULEV200	L4ULEV125	California LEV-IV ULEV125

## Certification Summary Information Report

Test Group		VHYXT00.0400	Evaporative/Refueling Family		--
L3SULEV170	California LEV-III SULEV170		L4ULEV200	California LEV-IV ULEV200	
L3SULEV150	California LEV-III SULEV150		L4ULEV250	California LEV-IV ULEV250	
L3LEV630	California LEV-III LEV630		L4ULEV270	California LEV-IV ULEV270	
L3ULEV570	California LEV-III ULEV570		L4ULEV40	California LEV-IV ULEV40	
L3ULEV400	California LEV-III ULEV400		L4ULEV400	California LEV-IV ULEV400	
L3ULEV270	California LEV-III ULEV270		L4ULEV50	California LEV-IV ULEV50	
L3SULEV230	California LEV-III SULEV230		L4ULEV60	California LEV-IV ULEV60	
L3SULEV200	California LEV-III SULEV200		L4ULEV70	California LEV-IV ULEV70	
<b>Transmission Type Code</b>					
AMS	Automated Manual- Selectable (e.g. Automated Manual with paddles)		M	Manual	
A	Automatic		OT	Other	
AM	Automated Manual		SA	Semi-Automatic	
CVT	Continuously Variable		SCV	Selectable Continuously Variable (e.g. CVT with paddles)	
<b>Drive System Code</b>					
4	4-Wheel Drive		P	Part-time 4-Wheel Drive	
F	2-Wheel Drive, Front		A	All Wheel Drive	
R	2-Wheel Drive, Rear				
<b>Additional Terms and Acronyms</b>					
AFC	Alternative Fuel Converter		ICI	Independent Commercial Importer	
CSI	Certificate Summary Information		ORVR	Onboard Refueling Vapor Recovery	
DF	Deterioration Factor		SIL	Shift Indicator Light	
Evap	Evaporation, Evaporative		Trans	Transmission	