

APPLICATION FOR CERTIFICATION

2024 MODEL YEAR

Durability Group:	RGMXEEENN002
Test Group:	RGMXT00.0012
Durability Group Description:	Battery Electric Vehicle
Test Group Description:	2-Motor AWD (1 Front, 1 Rear)
Applicable Standards:	MDPV BIN0 / ZEV
Carlines Covered by Evaporative Family:	GMC HUMMER EV PICKUP GMC HUMMER EV PICKUP MT TIRES GMC HUMMER EV SUV GMC HUMMER EV SUV MT TIRES
Vehicles Tested:	RVTBB204
For Questions, Contact:	C. Lounds (313) 550-0024

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(Included in Initial Application)

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(Included in Final Application)

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TEST VEHICLE DESCRIPTION

Data Vehicle Selection

Test Group	RGMXT00.0012
Combined Motor Output - kW	428
Battery Size (Module Count)	20
Engine Code	1
Model	T35526
Transmission Type/Code	A1 /1 (Electric Motor)
Test Weight Class Basis (ALVW or LVW)	LVW
Test Weight Class – lbs	9000
GVWR – lbs	9990
Roadload HP	27.8
Drive Unit Ratio(s)	13.26 Front / 13.26 Rear
N/V Ratio – rpm/mph	131.1
Tires	LT305/70R18/E/126R
Vehicle/EPA Config No./GM Config No.	RVTBB204/00/000

NOTE: For complete vehicle information, see vehicle information submitted in VERIFY database.

Data Vehicle Selection Justification – This vehicle represents the worst-case range pick for this test group.

Certification Summary Information Report

Manufacturer	General Motors LLC	Manufacturer Code	GMX
Test Group	RGMXT00.0012	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	05/08/2023 02:25:05 PM
Model Year	2024		

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	--	No

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	MDPV
Federal Clean Fuel Vehicle	No	Federal Clean Fuel Vehicle Standard	--
Federal Clean Fuel Vehicle ILEV	No	California Partial Zero Emissions Vehicle Indicator	No
Durability Group Name	RGMXEEVNN002	Durability Group Equivalency Factor	1
Reduced Fee Test Group	No	Certification Region Code(s)	FA, CA
Complies with HD GHG 2b/3 regulations?	No		
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	RGMXT00.0012
Test Group OBD Compliance Level	Full - no deficiencies	Number of Test Group OBD Deficiencies	0
OBD Deficiencies Comments	--		
Mfr Test Group Comments	--		
Mfr Exhaust / Evap Standards Comments	--		

Certification Summary Information Report

Test Group	RGMXT00.0012	Evaporative/Refueling Family	--
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Models Covered by this Certificate

Carline Manufacturer	Division	Carline	Certification Region Code(s)	Drive System	Trans - Type	- # of Gears	Trans - Lockup
General Motors LLC	4 - GMC	977 - HUMMER EV SUV	California + CAA Section 177 states	All Wheel Drive	Automatic	1	No
General Motors LLC	4 - GMC	977 - HUMMER EV SUV	Federal	All Wheel Drive	Automatic	1	No
General Motors LLC	4 - GMC	979 - HUMMER EV SUV MT TIRES	California + CAA Section 177 states	All Wheel Drive	Automatic	1	No
General Motors LLC	4 - GMC	978 - HUMMER EV PICKUP	California + CAA Section 177 states	All Wheel Drive	Automatic	1	No
General Motors LLC	4 - GMC	980 - HUMMER EV PICKUP MT TIRES	Federal	All Wheel Drive	Automatic	1	No
General Motors LLC	4 - GMC	979 - HUMMER EV SUV MT TIRES	Federal	All Wheel Drive	Automatic	1	No
General Motors LLC	4 - GMC	980 - HUMMER EV PICKUP MT TIRES	California + CAA Section 177 states	All Wheel Drive	Automatic	1	No
General Motors LLC	4 - GMC	978 - HUMMER EV PICKUP	Federal	All Wheel Drive	Automatic	1	No

Engine Description

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

After Treatment Device(s) (ATD)

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

Official Test Numbers

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

Official Charge Depleting Test Numbers

Test Group Fuel	UDDS	Highway
Electricity	RGMX10079793	RGMX10079794

Certification Summary Information Report

Test Group	RGMXT00.0012	Evaporative/Refueling Family	--
Hybrid Electric Vehicle And Fuel Cell Information			
Rechargeable Energy Storage System	Battery(s)	Rechargeable Energy Storage System, if Other	--
Battery Type	Lithium Ion	Number of Battery Packs	1
Total Voltage of Battery Packs	334	Battery Energy Capacity	596
Battery Specific Energy	159	Battery Charger Type	Both
Number of Capacitors	--	Capacitor Rating (In Farads)	--
Mfr Capacitor Comments	--		
Hydraulic System Description	--		
Regenerative Braking Type	Electrical Regen Brake		
Regenerative Braking Source	Both	Driver Controlled Regenerative Braking	No
Mfr Regenerative Braking Description	--		
Drive Motor(s)/Generator(s)	2		
Motor/Generator Type 1	AC PERMANANT MAGNET	Rated Motor/Generator Power	214
Motor/Generator Type 2	AC PERMANANT MAGNET	Rated Motor/Generator Power	214
Mfr Fuel Cell Description	--		
Fuel Cell On-Board H2 Storage Capacity (kg)	--	Usable H2 Fill Capacity (kg)	--
Mfr Hybrid Electric/ Electric Vehicle Comments	--		

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Certification Summary Information Report

Test Group	RGMXT00.0012	Evaporative/Refueling Family	--
Manufacturer Test Vehicle Comments	HUMMER SUV EDV NORMAL MODE OPD OFF		

Certification Summary Information Report

Test Group	RGMXT00.0012		Evaporative/Refueling Family		--																									
Test #	RGMX10079793		Test Procedure		81 - Charge Depleting UDDS																									
Exhaust Test # for this Evap Test	--		Test Fuel Type		62 - Electricity																									
Test Date	03/29/2023		Fuel		Electricity																									
Fuel Batch ID	000000		Fuel Calibration Number		99																									
Vehicle Class	MDPV (Federal Tier 2, GVWR 8501-10000), MDV6 (Cal. LEV 2/3 MDV GVW 8501-10000)		DF Type		Mfr. Assigned																									
Verify Test Lab ID	Compliance and Certification																													
E10 Evaporative Test Measurement Method	--																													
Test Start Odometer Reading	3868		Odometer Units		M																									
4WD Test Dyno	Yes		Diesel Adjustment Factor Usage		--																									
State of Charge Delta	No		Road Speed Fan Usage		Yes																									
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)																													
PHEV/EV Charge Depleting Test Information																														
Recharge Event Voltage	240		Recharge Event Energy (kiloWatt-hours)		198.29																									
Charge Depleting Range (Calculated miles)	430.294		Charge Depleting Range (Actual miles)		430.294																									
All Electric Range Unadjusted (miles)	--		Derived 5-Cycle Coefficient Model Year		--																									
Equivalent All Electric Range (miles)	430.294																													
Number of Charge Depleting Bags/Phases Conducted	1		Transition Bag/Phase Number		--																									
Charge Depleting Bag/Phase																														
<table border="1"> <thead> <tr> <th>Charge Depleting Bag/Phase #</th> <th>Test Result/Emission Name</th> <th>Unrounded Test Result</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Carbon-Related Exhaust Emissions</td> <td>0</td> </tr> <tr> <td>2</td> <td>Drive Trace Absolute Speed Change Rating</td> <td>1.59</td> </tr> <tr> <td>3</td> <td>Drive Trace Energy Economy Rating</td> <td>0.72</td> </tr> <tr> <td>4</td> <td>Drive Trace Inertia Work Ratio Rating</td> <td>2.36</td> </tr> <tr> <td>5</td> <td>Manufacturer Fuel Economy</td> <td>51</td> </tr> <tr> <td>6</td> <td>System End State of Charge Watt-hours</td> <td>0</td> </tr> <tr> <td>7</td> <td>System Start State of Charge Watt-hours</td> <td>3.2997</td> </tr> </tbody> </table>							Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result	1	Carbon-Related Exhaust Emissions	0	2	Drive Trace Absolute Speed Change Rating	1.59	3	Drive Trace Energy Economy Rating	0.72	4	Drive Trace Inertia Work Ratio Rating	2.36	5	Manufacturer Fuel Economy	51	6	System End State of Charge Watt-hours	0	7	System Start State of Charge Watt-hours	3.2997
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Manufacturer Test Comments																														
4K CDEM TEST DC ENERGY CONSUMPTION UDDS1 = 442.491 WH/MI; UDDS2 = 408.3836 WH/MI; UDDS3 = 414.5255 WH/MI; UDDS4 = 410.2185 WH/MI; UDDS WEIGHTED = 411.6284 WH/MI; UDDS1 DC DISCHARGE ENERGY = 3299.7 WH; MCT UBE ENERGY = 177120.9 WH																														
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 HD Class 3 Bin 0	CREE	0	--	--	--	0	--	0	--	--																		
CA	150,000 miles	California ZEV	CREE	0	--	--	--	0	--	0	--	--																		

Certification Summary Information Report

Test Group	RGMXT00.0012		Evaporative/Refueling Family	--																								
Test #	RGMX10079794		Test Procedure	84 - Charge Depleting Highway																								
Exhaust Test # for this Evap Test	--		Test Fuel Type	62 - Electricity																								
Test Date	03/29/2023		Fuel	Electricity																								
Fuel Batch ID	000000		Fuel Calibration Number	99																								
Vehicle Class	MDPV (Federal Tier 2, GVWR 8501-10000), MDV6 (Cal. LEV 2/3 MDV GVW 8501-10000)		DF Type	Mfr. Assigned																								
Verify Test Lab ID	Compliance and Certification																											
E10 Evaporative Test Measurement Method	--																											
Test Start Odometer Reading	3868		Odometer Units	M																								
4WD Test Dyno	Yes		Diesel Adjustment Factor Usage	--																								
State of Charge Delta	No		Road Speed Fan Usage	Yes																								
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)																											
PHEV/EV Charge Depleting Test Information																												
Recharge Event Voltage	240		Recharge Event Energy (kiloWatt-hours)	198.29																								
Charge Depleting Range (Calculated miles)	358.981		Charge Depleting Range (Actual miles)	358.981																								
All Electric Range Unadjusted (miles)	--		Derived 5-Cycle Coefficient Model Year	--																								
Equivalent All Electric Range (miles)	358.981																											
Number of Charge Depleting Bags/Phases Conducted	1		Transition Bag/Phase Number	--																								
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4	Drive Trace Inertia Work Ratio Rating	1.93																										
5	Manufacturer Fuel Economy	43																										
6	System End State of Charge Watt-hours	0																										
7	System Start State of Charge Watt-hours	5.0544																										
Manufacturer Test Comments																												
4K CDHW TEST DC ENERGY CONSUMPTION HWFE1 = 492.5404 WH/MI; HWFE2 = 494.2614 WH/MI; HWFE AVERAGE = 493.4009 WH/MI																												
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 HD Class 3 Bin 0	CREE	0	--	--	--	0	--	0	--	--																
CA	150,000 miles	California ZEV	CREE	0	--	--	--	0	--	0	--	--																

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Certification Summary Information Report

Test Group	RGMXT00.0012		Evaporative/Refueling Family	--																									
Test #	RGMX10079795		Test Procedure	81 - Charge Depleting UDDS																									
Exhaust Test # for this Evap Test	--		Test Fuel Type	62 - Electricity																									
Test Date	03/31/2023		Fuel	Electricity																									
Fuel Batch ID	000000		Fuel Calibration Number	99																									
Vehicle Class	MDPV (Federal Tier 2, GVWR 8501-10000), MDV6 (Cal. LEV 2/3 MDV GVW 8501-10000)		DF Type	Mfr. Assigned																									
Verify Test Lab ID	Compliance and Certification																												
E10 Evaporative Test Measurement Method	--																												
Test Start Odometer Reading	4214		Odometer Units	M																									
4WD Test Dyno	No		Diesel Adjustment Factor Usage	--																									
State of Charge Delta	No		Road Speed Fan Usage	Yes																									
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)																												
PHEV/EV Charge Depleting Test Information																													
Recharge Event Voltage	240		Recharge Event Energy (kiloWatt-hours)	198.144																									
Charge Depleting Range (Calculated miles)	473.147		Charge Depleting Range (Actual miles)	473.147																									
All Electric Range Unadjusted (miles)	--		Derived 5-Cycle Coefficient Model Year	--																									
Equivalent All Electric Range (miles)	473.147																												
Number of Charge Depleting Bags/Phases Conducted	1		Transition Bag/Phase Number	--																									
Charge Depleting Bag/Phase																													
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Manufacturer Test Comments																													
4K CDEM TEST DC ENERGY CONSUMPTION UDDS1 = 401.7488 WH/MI; UDDS2 = 381.1263 WH/MI; UDDS3 = 370.8786 WH/MI; UDDS4 = 372.4069 WH/MI; UDDS WEIGHTED = 375.2572 WH/MI; UDDS1 DC DISCHARGE ENERGY = 2986.4 WH; MCT UBE ENERGY = 177551.4 WH																													
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 HD Class 3 Bin 0	CREE	0	--	--	--	0	--	0	--	--																	
CA	150,000 miles	California ZEV	CREE	0	--	--	--	0	--	0	--	--																	

Certification Summary Information Report

Test Group	RGMXT00.0012		Evaporative/Refueling Family	--																								
Test #	RGMX10079796		Test Procedure	84 - Charge Depleting Highway																								
Exhaust Test # for this Evap Test	--		Test Fuel Type	62 - Electricity																								
Test Date	03/31/2023		Fuel	Electricity																								
Fuel Batch ID	000000		Fuel Calibration Number	99																								
Vehicle Class	MDPV (Federal Tier 2, GVWR 8501-10000), MDV6 (Cal. LEV 2/3 MDV GVW 8501-10000)		DF Type	Mfr. Assigned																								
Verify Test Lab ID	Compliance and Certification																											
E10 Evaporative Test Measurement Method	--																											
Test Start Odometer Reading	4214		Odometer Units	M																								
4WD Test Dyno	No		Diesel Adjustment Factor Usage	--																								
State of Charge Delta	No		Road Speed Fan Usage	Yes																								
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)																											
PHEV/EV Charge Depleting Test Information																												
Recharge Event Voltage	240		Recharge Event Energy (kiloWatt-hours)	198.144																								
Charge Depleting Range (Calculated miles)	385.244		Charge Depleting Range (Actual miles)	385.244																								
All Electric Range Unadjusted (miles)	--		Derived 5-Cycle Coefficient Model Year	--																								
Equivalent All Electric Range (miles)	385.244																											
Number of Charge Depleting Bags/Phases Conducted	1		Transition Bag/Phase Number	--																								
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Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result																										
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Manufacturer Test Comments																												
4K CDHW TEST DC ENERGY CONSUMPTION HWFE1 = 464.6854 WH/MI; HWFE2 = 457.0778 WH/MI; HWFE AVERAGE = 460.8816 WH/MI																												
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 HD Class 3 Bin 0	CREE	0	--	--	--	0	--	0	--	--																
CA	150,000 miles	California ZEV	CREE	0	--	--	--	0	--	0	--	--																

Certification Summary Information Report

Test Group	RGMXT00.0012	Evaporative/Refueling Family	--					
Emission Data Vehicle Information								
Vehicle ID / Configuration	RVTBB204 / 2	Manufacturer Vehicle Configuration Number	2					
Original Test Group Name	RGMXT00.0012	Original Evaporative/Refueling Family	--					
Original Test Vehicle Model Year	2024							
Vehicle Model								
Represented Test Vehicle Make	GMC	Represented Test Vehicle Model	HUMMER EV PICKUP					
Leak Family Details								
Leak Family Identifier	--	Leak Family Name	--					
Drive Sources and Fuel System Details								
	<table border="1"> <tr> <th>Drive Source and Fuel#</th> <th>Drive Source</th> <th>Fuel</th> </tr> <tr> <td>1</td> <td>Electric Motor</td> <td>Electricity</td> </tr> </table>	Drive Source and Fuel#	Drive Source	Fuel	1	Electric Motor	Electricity	
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 * Correction factor) + Initial system miles							
Odometer Correction Units	Miles							
Engine Code	1	Rated Horsepower	574					
Displacement (liters)	0.001							
Air Aspiration Method	Naturally Aspirated	Air Aspiration Method, if 'Other'						
Number of Air Aspiration Devices	0	Air Aspiration Device Configuration	--					
Charge Air Cooler Type	--	Drive Mode While Testing	2-Wheel Drive, Rear					
Shift Indicator Light Usage	Not equipped	Aged Emission Components	4,000 (mi)					
Curb Weight (lbs)	8440	Equivalent Test Weight (pounds)	8500					
GVWR (lbs)	9990	N/V Ratio	129.5					
Axle Ratio	1							
Transmission Type	Automatic	# of Transmission Gears	1					
Transmission Lockup	No	Creep Gear	No					
Dynamometer Coefficients:								
Target Coefficients			Set Coefficients					
Coefficient Category	A (lbf)	B (lbf/mph)	C (lbf/mph**2)					
City/Highway/Evap	58.21	0.0563	0.05244					
			A (lbf)					
			B (lbf/mph)					
			C (lbf/mph**2)					
			EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients					
			25.6					
Emission Control Device Comments								
--								

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Certification Summary Information Report

Test Group	RGMXT00.0012		Evaporative/Refueling Family	--																									
Test #	RGMX10079797		Test Procedure	81 - Charge Depleting UDDS																									
Exhaust Test # for this Evap Test	--		Test Fuel Type	62 - Electricity																									
Test Date	04/02/2023		Fuel	Electricity																									
Fuel Batch ID	000000		Fuel Calibration Number	99																									
Vehicle Class	MDPV (Federal Tier 2, GVWR 8501-10000), MDV6 (Cal. LEV 2/3 MDV GVW 8501-10000)		DF Type	Mfr. Assigned																									
Verify Test Lab ID	Compliance and Certification																												
E10 Evaporative Test Measurement Method	--																												
Test Start Odometer Reading	4563		Odometer Units	M																									
4WD Test Dyno	No		Diesel Adjustment Factor Usage	--																									
State of Charge Delta	No		Road Speed Fan Usage	Yes																									
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)																												
PHEV/EV Charge Depleting Test Information																													
Recharge Event Voltage	240		Recharge Event Energy (kiloWatt-hours)	199.178																									
Charge Depleting Range (Calculated miles)	490.801		Charge Depleting Range (Actual miles)	490.801																									
All Electric Range Unadjusted (miles)	--		Derived 5-Cycle Coefficient Model Year	--																									
Equivalent All Electric Range (miles)	490.801																												
Number of Charge Depleting Bags/Phases Conducted	1		Transition Bag/Phase Number	--																									
Charge Depleting Bag/Phase																													
<table border="1"> <thead> <tr> <th>Charge Depleting Bag/Phase #</th> <th>Test Result/Emission Name</th> <th>Unrounded Test Result</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Carbon-Related Exhaust Emissions</td> <td>0</td> </tr> <tr> <td>2</td> <td>Drive Trace Absolute Speed Change Rating</td> <td>1.16</td> </tr> <tr> <td>3</td> <td>Drive Trace Energy Economy Rating</td> <td>0.76</td> </tr> <tr> <td>4</td> <td>Drive Trace Inertia Work Ratio Rating</td> <td>2.03</td> </tr> <tr> <td>5</td> <td>Manufacturer Fuel Economy</td> <td>58</td> </tr> <tr> <td>6</td> <td>System End State of Charge Watt-hours</td> <td>0</td> </tr> <tr> <td>7</td> <td>System Start State of Charge Watt-hours</td> <td>2.9575</td> </tr> </tbody> </table>						Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result	1	Carbon-Related Exhaust Emissions	0	2	Drive Trace Absolute Speed Change Rating	1.16	3	Drive Trace Energy Economy Rating	0.76	4	Drive Trace Inertia Work Ratio Rating	2.03	5	Manufacturer Fuel Economy	58	6	System End State of Charge Watt-hours	0	7	System Start State of Charge Watt-hours	2.9575
Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result																											
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5	Manufacturer Fuel Economy	58																											
6	System End State of Charge Watt-hours	0																											
7	System Start State of Charge Watt-hours	2.9575																											
Manufacturer Test Comments																													
4K CDEM TEST DC ENERGY CONSUMPTION UDDS1 = 395.6469 WH/MI; UDDS2 = 363.0823 WH/MI; UDDS3 = 362.7517 WH/MI; UDDS4 = 360.1557 WH/MI; UDDS WEIGHTED = 362.5559 WH/MI; UDDS1 DC DISCHARGE ENERGY = 2957.5 WH; MCT UBE ENERGY = 177942.9 WH																													
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 HD Class 3 Bin 0	CREE	0	--	--	--	0	--	0	--	--																	
CA	150,000 miles	California ZEV	CREE	0	--	--	--	0	--	0	--	--																	

Certification Summary Information Report

Test Group	RGMXT00.0012	Evaporative/Refueling Family	--																								
Test #	RGMX10079798	Test Procedure	84 - Charge Depleting Highway																								
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity																								
Test Date	04/02/2023	Fuel	Electricity																								
Fuel Batch ID	000000	Fuel Calibration Number	99																								
Vehicle Class	MDPV (Federal Tier 2, GVWR 8501-10000), MDV6 (Cal. LEV 2/3 MDV GVW 8501-10000)	DF Type	Mfr. Assigned																								
Verify Test Lab ID	Compliance and Certification																										
E10 Evaporative Test Measurement Method	--																										
Test Start Odometer Reading	4563	Odometer Units	M																								
4WD Test Dyno	No	Diesel Adjustment Factor Usage	--																								
State of Charge Delta	No																										
Drive Cycle Speed Tolerance Criteria	Used Part 1066 (+/- 2.0 mph, +/- 1.0 sec)	Road Speed Fan Usage	Yes																								
PHEV/EV Charge Depleting Test Information																											
Recharge Event Voltage	240	Recharge Event Energy (kiloWatt-hours)	199.178																								
Charge Depleting Range (Calculated miles)	393.31	Charge Depleting Range (Actual miles)	393.31																								
All Electric Range Unadjusted (miles)	--	Derived 5-Cycle Coefficient Model Year	--																								
Equivalent All Electric Range (miles)	393.31																										
Number of Charge Depleting Bags/Phases Conducted	1	Transition Bag/Phase Number	--																								
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5	Manufacturer Fuel Economy	47																									
6	System End State of Charge Watt-hours	0																									
7	System Start State of Charge Watt-hours	4.6552																									
Manufacturer Test Comments																											
4K CDHW TEST DC ENERGY CONSUMPTION HWFE1 = 453.9931 WH/MI; HWFE2 = 450.8546 WH/MI; HWFE AVERAGE = 452.4239 WH/MI																											
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 HD Class 3 Bin 0	CREE	0	--	--	--	0	--	0	--	--															
CA	150,000 miles	California ZEV	CREE	0	--	--	--	0	--	0	--	--															

Certification Summary Information Report

Test Group	RGMXT00.0012	Evaporative/Refueling Family	--
Fuel Properties			
Fuel Batch ID	000000	Fuel Calibration Number	99
Test Fuel Type	62 - Electricity	Fuel Batch Calibration Date	01/01/2023
Fuel Batch Calibration Effective Date	01/01/2023	Fuel Batch Calibration Ineffective Date	--
Carbon Weight Fraction NMHC	--	Carbon Weight Fraction HC	--
Exhaust Carbon Weight Fraction	--	Fuel Methanol Volume Fraction	--
Fuel Density (grams/cubic ft)	--	Fuel Specific Gravity	0
Fuel Ethanol Volume Percent (%)	--	Fuel Net Heating Value (BTU / lb)	11111
Fuel Blend Carbon Weight Fraction	0	Weight Fraction CO2	--

Certification Summary Information Report

Test Group		RGMXT00.0012			Evaporative/Refueling Family			--	
Consolidated List of Standards									
Exhaust Standards									
Cert Region		California + CAA Section 177 states			Cert/In-Use Code			Cert	
Vehicle Class		MDV6 (Cal. LEV 2/3 MDV 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	CREE	--	--	--	--	--	--	0	0
Cert Region		California + CAA Section 177 states			Cert/In-Use Code			Cert	
Vehicle Class		MDV6 (Cal. LEV 2/3 MDV 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	CREE	--	--	--	--	--	--	0	0
Cert Region		California + CAA Section 177 states			Cert/In-Use Code			Cert	
Vehicle Class		MDV6 (Cal. LEV 2/3 MDV GVW 8501-10000)			Standard Level			California ZEV	
Fuel		Electricity			Test Procedure			Federal fuel 3-day exhaust	
Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
150,000 miles	CO	--	--	--	--	--	--	0	0
Cert Region		Federal			Cert/In-Use Code			Cert	
Vehicle Class		MDPV (Federal Tier 2, GVWR 8501-10000)			Standard Level			Federal Tier 3 HD Class 3 Bin 0	
Fuel		Electricity			Test Procedure			Federal fuel 3-day exhaust	
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

Certification Summary Information Report

Test Group		RGMXT00.0012			Evaporative/Refueling Family			--	
Cert Region		Federal			Cert/In-Use Code			Cert	
Vehicle Class		MDPV (Federal Tier 2, GVWR 8501-10000)			Standard Level			Federal Tier 3 HD Class 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	CREE	--	--	--	--	--	--	0	0
Cert Region		Federal			Cert/In-Use Code			Cert	
Vehicle Class		MDPV (Federal Tier 2, GVWR 8501-10000)			Standard Level			Federal Tier 3 HD Class 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	CREE	--	--	--	--	--	--	0	0

Certification Summary Information Report

Test Group		RGMXT00.0012	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		RGMXT00.0012	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		RGMXT00.0012		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		

FLEXIBLE OR ALTERNATE FUELS

Battery Electric Vehicle (BEV) System Description

Electric Drive Unit

Two 3-Phase AC Permanent Magnet Electric Motors (1 Front, 1 Rear)

Outputs at 100% Inverter limit:

Front Motor: 214kW / 421Nm

Rear Motor: 214kW / 421Nm

Battery

Lithium Ion Battery Pack

170 kWh Pack Energy Capacity (Rated C/3)

Transmission

Two automatic single speed drive units (One front unit / One rear unit)

Regenerative Braking System

During coasting and during brake applies, the electric motor will be used to decelerate the vehicle and provide electricity to the high voltage battery. The amount of charge the high voltage battery will accept will vary during normal operation depending on the battery state of charge and temperature.

Additional Information Provided in Owner's Manual Documents

Proper recharging procedure

Description of warning system(s) for malfunctions

Starting and shifting procedures

Vehicle safety with the following subtopics:

Information supplied to the customer for safe operation of the vehicle

Information on safe handling of the battery system

Description of emergency procedures

Vehicle Parameters - Certificate Coverage

Durability Group RGMXEEENN002
TestGroup RGMXT00.0012

EC	Eng RPO	Disp	Evap Family	Evap Code	Model	Car Line	Trans Type/Code	Final Drive Ratio	GVWR	Tire	N/V	Loaded Weight Veh/DA	TWC Meth	TWC	TLHP	F0	F1	F2	RLHP RPO	Drv Sys	Note
1	XRJ	0.0	RGMXNA	NA	TT35526	HUMMER EV SUV	AV/1	1.00	9900	LT305/55R22 AT GDY	129.5	8765/4455	LVW	9000	26.3	60.57	0.0651	0.05327	&CGO&ETJ&K2O&S80&WMY	AD	--
1	XRJ	0.0	RGMXNA	NA	TT35526	HUMMER EV SUV	AV/1	1.00	9990	LT305/55R22 AT GDY	129.5	8765/4455	LVW	9000	26.3	60.57	0.0651	0.05327	&CGO&ETJ&K2O&S80&WMY	AD	--
1	XRJ	0.0	RGMXNA	NA	TT35526	HUMMER EV SUV	AV/1	1.00	9990	LT305/55R22 AT GDY	129.5	8775/4460	LVW	9000	26.3	60.57	0.0651	0.05327	&CGO&ETJ&K2W&S80&WMY	AD	--
1	XRJ	0.0	RGMXNA	NA	TT35526+QMG	HUMMER EV SUV MT TIRES	AV/1	1.00	9900	305/70R18 OOR GDY	131.1	8913/4553	LVW	9000	27.8	72.24	0.0359	0.05371	&CGO&ETJ&K2O&S8L&WMY	AD	--
1	XRJ	0.0	RGMXNA	NA	TT35526+QMG	HUMMER EV SUV MT TIRES	AV/1	1.00	9990	305/70R18 OOR GDY	131.1	8913/4553	LVW	9000	27.8	72.24	0.0359	0.05371	&CGO&ETJ&K2O&S8L&WMY	AD	--
1	XRJ	0.0	RGMXNA	NA	TT35526+QMG	HUMMER EV SUV MT TIRES	AV/1	1.00	9990	305/70R18 OOR GDY	131.1	8923/4558	LVW	9000	27.8	72.24	0.0359	0.05371	&CGO&ETJ&K2W&S8L&WMY	AD	--
1	XRJ	0.0	RGMXNA	NA	TT35743	HUMMER EV PICKUP	AV/1	1.00	9900	LT305/55R22 AT GDY	129.5	8740/4277	LVW	8500	25.6	58.21	0.0563	0.05244	&CGO&ETI&K2O&S80&WMY	AD	--
1	XRJ	0.0	RGMXNA	NA	TT35743	HUMMER EV PICKUP	AV/1	1.00	9990	LT305/55R22 AT GDY	129.5	8740/4277	LVW	8500	25.6	58.21	0.0563	0.05244	&CGO&ETI&K2O&S80&WMY	AD	--
1	XRJ	0.0	RGMXNA	NA	TT35743	HUMMER EV PICKUP	AV/1	1.00	9990	LT305/55R22 AT GDY	129.5	8750/4282	LVW	8500	25.6	58.21	0.0563	0.05244	&CGO&ETI&K2W&S80&WMY	AD	--
1	XRJ	0.0	RGMXNA	NA	TT35743+QMG	HUMMER EV PICKUP MT	AV/1	1.00	9900	305/70R18 OOR GDY	131.1	8918/4398	LVW	9000	27.5	72.24	0.0359	0.05293	&CGO&ETI&K2O&S8L&WMY	AD	--
1	XRJ	0.0	RGMXNA	NA	TT35743+QMG	HUMMER EV PICKUP MT	AV/1	1.00	9990	305/70R18 OOR GDY	131.1	8918/4398	LVW	9000	27.5	72.24	0.0359	0.05293	&CGO&ETI&K2O&S8L&WMY	AD	--
1	XRJ	0.0	RGMXNA	NA	TT35743+QMG	HUMMER EV PICKUP MT	AV/1	1.00	9990	305/70R18 OOR GDY	131.1	8928/4403	LVW	9000	27.5	72.24	0.0359	0.05293	&CGO&ETI&K2W&S8L&WMY	AD	--
2	XRJ	0.0	RGMXNA	NA	TT35526	HUMMER EV SUV	AV/1	1.00	9900	LT305/55R22 AT GDY	129.5	8700/4390	LVW	8500	25.9	58.21	0.0563	0.05325	&CGO&ETJ&K28&S80&WMY	AD	--
2	XRJ	0.0	RGMXNA	NA	TT35526	HUMMER EV SUV	AV/1	1.00	9990	LT305/55R22 AT GDY	129.5	8700/4390	LVW	8500	25.9	58.21	0.0563	0.05325	&CGO&ETJ&K28&S80&WMY	AD	--
2	XRJ	0.0	RGMXNA	NA	TT35526	HUMMER EV SUV	AV/1	1.00	9990	LT305/55R22 AT GDY	129.5	8710/4395	LVW	8500	25.9	58.21	0.0563	0.05325	&CGO&ETJ&K29&S80&WMY	AD	--
2	XRJ	0.0	RGMXNA	NA	TT35743	HUMMER EV PICKUP	AV/1	1.00	9900	LT305/55R22 AT GDY	129.5	8653/4191	LVW	8500	25.6	58.21	0.0563	0.05244	&CGO&ETI&K28&S80&WMY	AD	--
2	XRJ	0.0	RGMXNA	NA	TT35743	HUMMER EV PICKUP	AV/1	1.00	9990	LT305/55R22 AT GDY	129.5	8653/4191	LVW	8500	25.6	58.21	0.0563	0.05244	&CGO&ETI&K28&S80&WMY	AD	--
2	XRJ	0.0	RGMXNA	NA	TT35743	HUMMER EV PICKUP	AV/1	1.00	9990	LT305/55R22 AT GDY	129.5	8663/4196	LVW	8500	25.6	58.21	0.0563	0.05244	&CGO&ETI&K29&S80&WMY	AD	--

GM elects to test at the next higher test weight class where applicable (reference 40CFR86.1831-01(b)(3)).

Engine Code Information

Base Engine Code	1
EC Derivatives	
Test Group	RGMXT00.0012
Durability Group	RGMXEEENN002
Electrified Propulsion System RPO	XRJ
Primary Drive Unit RPO	P8L,P80
Trans Type	A1
Product Code	2
Emission RPO	NF6
Emissions Category	ZEV
Vehicle Type	TRUCK
Regulatory Agencies	C
Sales Area	FA/CA
Design Altitude	Both
A/C Equipped	Yes
Driver Select Device	Normal, OPD-On, OPD-High, WtF, Adrenaline, Relaxed, Tow/Haul, Off Road, Terrain
Police Only	No
Horsepower @ RPM	574
Torque @ RPM	621
TapUp/TapDown	No
Description	Hummer SUV/SUT 19kW/22kW

Engine Code Information

Base Engine Code	2
EC Derivatives	
Test Group	RGMXT00.0012
Durability Group	RGMXEEENN002
Electrified Propulsion System RPO	XRJ
Primary Drive Unit RPO	P80
Trans Type	A1
Product Code	2
Emission RPO	NF6
Emissions Category	ZEV
Vehicle Type	TRUCK
Regulatory Agencies	C
Sales Area	FA/CA
Design Altitude	Both
A/C Equipped	Yes
Driver Select Device	Normal, OPD-On, OPD-High, WtF, Adrenaline, Relaxed, Tow/Haul, Off Road, Terrain
Police Only	No
Horsepower @ RPM	574
Torque @ RPM	621
TapUp/TapDown	No
Description	Hummer SUV/SUT 11kW

TRANSMISSION INFORMATION

Test Group ID	RGMXT00.0012	RGMXT00.0012
Transmission Code	1	1
Transmission RPO	P80	P8L
Transmission Type	AV	AV
Drive Gear Ratios	13.26	13.26
Chain Drive Ratio	NA	NA
Shift Calibrations	Computer Controlled	Computer Controlled
Torque Converter Diameter	NA	NA
Torque Converter Stall Torque Ratio	NA	NA
Torque Converter Lockup RPM'S	Computer Controlled	Computer Controlled
Torque Converter Stall Torque Speed	NA	NA
Multimode Feature - # of Modes	9	9
Shift Indicator Light	NA	NA
Description	MMF	MMF
TapUp/TapDown	NA	NA

SPECIAL TEST INSTRUCTIONS

OTHER

Anti-Lock Braking System (ABS):

This vehicle is equipped with ABS systems. AWD dynamometer and dyno mode is required to allow the vehicle to perform on the dynamometer in a representative manner. Please contact General Motors Compliance and Certification organization for support on enabling dyno mode.

Traction Control System (TCS):

This vehicle is equipped with TCS. AWD dynamometer and dyno mode is required to allow the vehicle to perform on the dynamometer in a representative manner. Please contact General Motors Compliance and Certification organization for support on enabling dyno mode.

Emission Test Special Vehicle Cooling:

When conducting an emission test, the front cooling fan is placed 12 inches from the floor to match the vehicle air inlet area.

Automatic Headlight Systems:

Automatic headlight systems must remain enabled during any emission or fuel economy testing. Disabling this system will also disable decorative exterior lighting which must remain on during testing.

Daytime Running Lights (DRL):

Daytime running lights must remain enabled during any emission or fuel economy testing.

VEHICLE STARTING INSTRUCTIONS

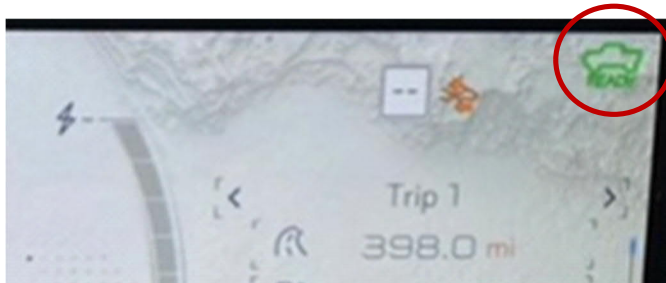
Starting Procedure:

Move the shift lever to P (Park) or N (Neutral). The propulsion system will not start in any other position. The Remote Keyless Entry (RKE) transmitter must be in the vehicle. The vehicle has an electronic push button start. Press the brake pedal and push and release the POWER button. See power button in Owner's Manual



Propulsion System Active (PSA) Mode:

This position is for starting and driving. With the vehicle off and the brake pedal applied, pressing the POWER button once will place the vehicle in ON/ RUN. When the vehicle ready light is on in the instrument cluster, the vehicle is ready to be driven. This could take up to 15 seconds at extremely cold temperatures. See Vehicle Ready Light in Owner's Manual.



A vehicle ready light displays in the upper right corner of the instrument cluster when the vehicle is ready to be driven. The instrument cluster also displays an active battery gauge when the vehicle is ready to be driven. Note: the CHECK ENGINE light will not be illuminated unless there is an issue with the vehicle.

Stopping the Vehicle/Off:

To turn the vehicle off, push the POWER button with the vehicle in P (Park). Retained Accessory Power (RAP) will remain active until the driver door is opened. See Retained Accessory Power (RAP) in Owner's Manual. When turning off the vehicle, if the vehicle is not in P (Park), the vehicle will automatically shift to park.

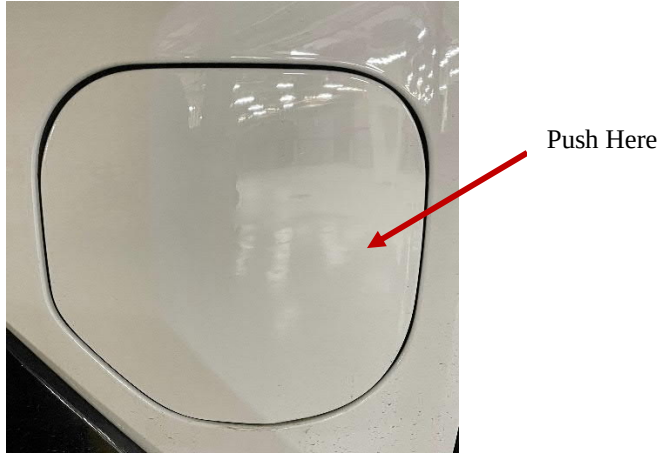
BATTERY CHARGING AND TESTING PROCEDURE INFORMATION

General Battery Charging Procedures:

Reference Owner's Manual for additional information.

Charging Plug-In Charging AC/DC Charge Cord Handle:

Open charge port door by pushing on the plug icon at the rear of the door.



Charge Port



DC Charge Port (Accessed by removing cap over lower portion of plug - See Owner's Manual for more information)

Charge times will vary with extreme hot or cold conditions. There are options to program how the vehicle is charged. See Charging section in Owner's Manual. While the charge cord is plugged into the vehicle, the vehicle cannot be driven.

BATTERY CHARGING AND TESTING PROCEDURE INFORMATION

AC Charging Start Charge:

1. Make sure the vehicle is in park and turned off.
2. Push the rearward edge of the charge port door in and release to open the door.
3. Connect the provided 240v charger.
4. Plug the charge cord into the metered 240V electrical outlet. See Electrical Requirements for Battery Charging in Owner's Manual. Verify the charge cord "power" status light is illuminated. Plug in the vehicle plug of the charge cord into the charge port on the vehicle. Verify that the Charging Status Indicator (CSI) illuminates. The CSI is the headlights of the vehicle.

When the vehicle is plugged in and the vehicle power is off, the CSI indicates the following:

All lights are blue – Battery is fully charged.

The system may be thermally conditioning the battery during any of the states above, requiring electrical energy to be transferred to the vehicle. If the vehicle is plugged in and vehicle power is on, the CSI will be blinking green. The same is true during a remote start if the vehicle is plugged in.

End Charge:

1. Unlock the vehicle with the key fob to disarm the charge cord theft alert.
2. Unplug the vehicle plug of the charge cord from the vehicle.
3. Close the charge port door by pressing firmly on the plug icon at the rear of the door.
4. Unplug the charge cord from the electrical outlet.

BATTERY CHARGING AND TESTING PROCEDURE INFORMATION

GENERAL TESTING PROCEDURES

EV Electric Range Test Sequence for GM Vehicles:

SAE J1634 (As Revised 2017, Section 8) shall be followed for all EV testing for GM Test Group RGMXT00.0009. Steady State at 65mph.

Vehicle Verification

Verify that vehicle has at least 80% SOC worth of charge for the dyno determination sequence. Verify that the Hioki sensors (contact GM for support) are installed and secured on the vehicle. Device to read high voltage battery voltage is connected (contact GM for support).

High Voltage Connections – Extreme Caution required

For safety reason GM does not provide any vehicle connections nor directions as to where to connect a Hioki to collect current/voltage data. Experienced personnel familiar with HV should reference the service manual for additional information.

** Note: GM may supply Hioki attachment points on Certification test vehicles supplied to the EPA for Confirmatory Testing.

Crabbing Vehicle

Vehicle shall be crabbed or pushed to charging station, test site, etc. while in any test sequence.

BATTERY CHARGING AND TESTING PROCEDURE INFORMATION

MULTI-CYCLE RANGE TEST

Soak/Charging:

Charge time not to exceed soak time. Minimum charge time of 12 hours 240 VAC CONTINUOUS charging. Disconnect the charger just prior to crabbing vehicle to site.

Prior to Test:

- Verify that all vehicle accessories are turned off
- Road speed fan on during test
- Hood closed
- Emission bags off
- Make sure no battery chargers are connected to 12VDC system
- Disable Dyno Augmented Braking from Dyno controller.
- Disable traction control (contact GM for support)
- Start vehicle by placing foot on brake and pressing the power button. Confirm "Ready" light on cluster is green (icon is on lower right side of cluster by PRNDL).
- Turn off the HVAC system completely by turning off auto and setting the fan to off.
- Turn off radio console stack completely by holding the radio power button until the display asks if you want to fully shut down the console stack. Select yes and the display should turn off.

During 10min Soak Periods:

- Vehicle keyed off and put in Park
- Shifter button completely released
- Driver door open and closed
- Vehicle hood closed
- Road speed fan off

End of Test Criteria:

- The official end of test criteria is when a drive trace error occurs due to the vehicle being unable to keep up with the trace (two second driver violation), per SAE J1634.
- Bring the vehicle to a controlled stop with the brake within 10 seconds

After UDDS and Highway Test Sequence(s):

To place vehicle in neutral for moving and dyno alignment:

- Follow neutral instructions from Dyno Determination instructions.
- Disconnect all CAN equipment on driver OBD-II ports.
- Verify that car systems power down. With keys left in car:
 - o Close all doors – horn will sound 3 quick beeps
 - o If no beeps, cycle accessory power again



May 5, 2023

RP084

Mr. D. Cullen
U.S. Environmental Protection Agency
Office of Transportation & Air Quality
Certification & Compliance Division
2000 Traverwood
Ann Arbor, MI 48105

Dear Mr. Cullen:

Subject: Request for Certificate of Conformity - General Motors 2024 Test Group
RGMXT00.0012

General Motors requests that the EPA issue a certificate of conformity for the subject test group/evaporative family. GM requests the EPA review this application promptly to expedite final approval of the certificate of conformity for the subject test group. Attached to this request is the Part 1 Application.

GM requests that the EPA treat the information contained in this Part 1 Application, or information subsequently submitted for inclusion in this application, as confidential business information under 40 C.F.R. Part 2, Subpart B, and 5 U.S.C. § 552. The EPA's General Counsel made a class determination that information contained in applications for certification is entitled to confidential treatment (see Class Determination 1-13). As such, GM requests that the information described in each Table of the Class Determination be accorded confidential treatment in accordance with the time periods specified.

GM believes that the test group complies with all applicable regulations contained in 40 C.F.R. Parts 85 and 86, and the applicable California Amendments of the EPA regulations it has incorporated, and Title 13 of the California Code of Regulations.

Please review this information as soon as possible and call if you should have any questions regarding this request for a certificate of conformity.

Sincerely,

Christopher D. Lounds

Christopher D. Lounds
Total Certification Engineer
Compliance & Certification

general motors

GM Proving Ground / Compliance & Certification / M/C 483-331-500 / 3300 GM Rd. / Milford, MI 48380-3726



May 5, 2023

RP085

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

Dear Ms. Lang:

Subject: Request for Executive Order - General Motors 2024 Test Group RGMXT00.0012

General Motors requests that CARB issue an executive order for the subject test group. GM requests that the CARB treat the information contained in this Part 1 Application, or information subsequently submitted for inclusion in this application, as confidential business information pursuant to the California Public Records Act and Sections 91000-91022 of Title 17 of the California Code of Regulations. The information is confidential and sensitive GM business information that constitutes trade secrets and commercial or financial information within the meaning of Section 6254.7 of the California Public Records Act, is entitled to confidential treatment, and will cause substantial competitive harm to GM if released. In the event that CARB does not agree with our position regarding confidential treatment of this information or is considering the public release of this confidential, trade secret, and commercial or financial information, or receives a request for disclosure of the information, we request that you first provide notice to me and we request the opportunity to discuss the material and the need to maintain the confidentiality of this information with you or the CARB General Counsel before any decision is made regarding its release. GM requests that the information be accorded confidential treatment indefinitely.

GM believes that the test group complies with all applicable regulations contained in 40 C.F.R. Parts 85 and 86, and the applicable California Amendments of the EPA regulations that CARB has incorporated and Title 13 of the California Code of Regulations.

The EPA certificate of conformity for this test group will be forwarded to you when it becomes available.

Based upon our review prior to submitting the application for certification and to the best of our current information and belief, the GM vehicles described in this request for executive order do not employ defeat devices, and do not use alternative maps or AECDs that have not been declared, nor does our emission control system include strategies that link transmission controls (input or output) to these AECDs. In addition, we do not use control strategies that would trigger different transmission behavior when driven on an official emission test compared to when driven on the road under the same conditions. We are submitting this statement to you in good faith. If, in the future, we identify any new relevant information, we will notify CARB in a timely fashion.

Please review this information as soon as possible and call if you have any questions regarding this request for an executive order.

Sincerely,

Christopher D. Lounds

Christopher D. Lounds
Total Certification Engineer
Compliance & Certification

general motors

GM Proving Ground / Compliance & Certification / M/C 483-331-500 / 3300 GM Rd. / Milford, MI 48380-3726

*** VEHICLE INFORMATION ***

Model Year	2024	Certifying Agent	GM
Test Vehicle	RVTBB204	GM Config	000
		Run Date	05/08/2023 13:29:48

VEHICLE NO:	RVTBB204	CONFIGURATION NO:	000	EPA VERSION NO:	00
				ORIGINAL CERT YEAR:	2024

ENG FAM/TEST GRP:	RGMXT00.0012	ENGINE CODE:	1		
EVAP FAMILY:	RGMXNA	EVAP CODE:	NA		
TEST PURPOSE:	DATA	DISPL:	0.0	SALES LOC:	BOTH
VEH TYPE: FED=	MDPV	CAL=	MDV4	EMIS CATEGORY: FED=	BIN 0 CAL= ZEV

DURA GRP:	RGMXEEVNN002	DURA VEH NO:		DURA CONFIG:	
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FUEL METER:		BOOST TYPE:		VALVES PER CYL:	0
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TRANS: TYPE=	A1	CODE= 1	MODE= NORMAL	SIL EQUIPPED:	No	SIL VERSION:	N/A
SHIFT SCHEDULE:	N/A	SHIFT SCHED NO:					
EVAP CANISTER SIZE(L):							
TANK CAPACITY (GAL): PRIM=		AUX=				PRIMARY FUEL:	ELEC
PREMIUM FUEL RECOM'D:	N	USAGE: F=	FA	C=	CA		
DYNAMOMETER DRIVE AXLE:	A						
TIRE PRESS(PSI): FRT=	45	REAR=	45	A/C EQ:	Y		
68d ROADLOAD: F0=	72.24	F1= 0.0359		F2= 0.05371		TRLHP 68d:	27.8
20d ROADLOAD: F0=	79.46	F1= 0.0395		F2= 0.05908		TRLHP 20d:	30.6

WEIGHTS (LBS):				TIRES:			
ETW: 9000	EPA CURB: 8623	GVWR:	9990	VENDOR:	GDY	SIZE:	LT305/70R18
				TREAD TYPE:	00R		

DESIGN:	CURB WEIGHT/TEST WT CLASS TYPE	DRIVE AXLE					
	8623/LVW	4419					

REP VEH MODEL:	TT35526	FIN DR RATIO:	1	N/V:	131.1	ENG RPO:	XRJ
ACTUAL MODEL NO:	TT35526						
RATED HP:	574	TCC:	Y				
OVERDRIVE:	N	CREEPER:	Y	PS:	YES	PB:	YES
MODE LINK CONFS:		C/O CONF:		SIL LINK CONF:			
ZERO-MILE ODO:	0	ODO CORR:	1.00				

COMMENTS	2M20 Hummer SUV EDV Normal
	Mode OPD Off

02MY24EN0XRJCG000

Dec 16 2022 00:56:37

262

1FS2362287



**VEHICLE EMISSION
CONTROL INFORMATION**



**GENERAL
MOTORS
LLC**

Conforms to Regulations: 2024
U.S. EPA class / stds: MDPV / TIER3
California class / stds: MDV / ZEV
Group: RGMXT00.0012
Evap: N/A
CA OBD: N/A

Fuel: Electric
02MY24EN0XRJCG000

Supplemental ZEV Application for Certification - RGMXT00.0012

<u>Section No.</u>	<u>Title</u>
01.00.0	Communications See GM Application for Certification RGMXT00.0012
.01.00	Mailing Information See GM Application for Certification RGMXT00.0012
.01	Certification Information See GM Application for Certification RGMXT00.0012
.02	Responsible official See GM Application for Certification RGMXT00.0012
02.00.00	Confidential Information See GM Application for Certification RGMXT00.0012
.01.00	Statement of confidentiality See GM Application for Certification RGMXT00.0012
.02.00	Test vehicle selection "Worst case" test vehicle selection and manufacturer defined criteria if more than one model offered (e.g. 2-door vs 4-door). See GM Application for Certification RGMXT00.0012
.03.00	Projected California sales See GM Application for Certification RGMXT00.0012
03.00.00	Facilities, equipment, and test procedures (Manufacturers to keep information regarding facilities and equipment on file.) Testing was conducted at GM facilities as well as EPA facilities – per SAE J1634 procedure (as Revised 2017, Section 8) Steady State at 65 mph
.01.00	Procedure to determine mass emissions of the fuel-fired heater Not applicable
.02.00	Battery pre-conditioning procedures (if necessary) None – Fully Charged per SAE J1634 procedure (as Revised 2017, Section 8)
04.00.00	(Reserved)
05.00.00	(Reserved)

Supplemental ZEV Application for Certification - RGMXT00.0012

<u>Section No.</u>	<u>Title</u>
06.00.00	Maintenance See Owner's Manual
.01.00	Test vehicle scheduled maintenance None
.02.00	Recommended customer maintenance schedule See Owner's Manual
.03.00	Lubricants and heater fuels, if any See Owner's Manual
07.00.00	Vehicle Emission Control Information (VECI) and Environmental Performance (EP) Labels
.01.00	VECI Label locations Under hood
.02.00	Sample emission control information labels See GM Application for Certification RGMXT00.0012
.03.00	Sample EP Label (Formerly called the Smog Index label) Per agreement with GM and CARB EPL is now incorporated in the vehicles Window sticker. Smog score value is 10. Actual window sticker not available until EPA Certificate and Fuel Economy Labels are available
.04.00	Statement of compliance See GM Application for Certification RGMXT00.0012
08.00.00	General technical description Manufacturer's sales brochures or owner's manual may be submitted to satisfy the requirements in this section See Owner's Manual
.01.00	Description of Propulsion System Two single speed fixed ratio direct drive units with 13.26 (front) and 13.26 (rear) axle ratios. Energy stored and provided by 334V lithium ion battery.
.02.00	Description of Motor(s) See GM Application for Certification RGMXT00.0012 – Permanent Magnet 3-phase electric machines
.03.00	Description of Batteries See GM Application for Certification RGMXT00.0012 – Lithium Ion, 334V (290V Nominal), 534 cells
.01	Battery charging capacity See GM Application for Certification RGMXT00.0012 – 596 Ah total pack capacity

Supplemental ZEV Application for Certification - RGMXT00.0012

<u>Section No.</u>	<u>Title</u>
.02	Self-discharge information Not applicable
.03	Description of thermal management system Liquid heating and cooling system
08.00.04	Definition of end-of-life The rechargeable energy storage system (RESS) is a collection of battery cells used for propulsion which are integrated into modules. For purposes of replacement, a module is no longer considered acceptable whenever any given cell has deviated by an unacceptable magnitude such that it would affect the safety of the vehicle.
.05	Description of battery disposal plan Battery is recycled using GM contractor for service and warranty replacements. GM also provides recycling resources at www.recyclemybattery.com .
.04.00	Description of Controller/Inverter High-voltage DC to high-voltage 3-phase AC
.05.00	Description of Transmission Single speed, fixed ratio
06.00	Description of climate control system
.01	Electric Heat Pump Not applicable
.02	Climate control system logic See HVAC section in Owner's Manual
.03	(Reserved) Not applicable
07.00	Description of Regenerative Braking System
.01	Control logic Brake system will recover energy until the driver requests more braking power than the traction system can deliver.
.02	Percentage of braking performed on road by each axle Energy is recovered from both axles.
.08.00	Description of chargers On-board, liquid cooled, 19.6 kW (240V), 80 Amp wall service on 240V On-board, liquid cooled, 11.5 kW (240V), 48 Amp wall service on 240V
.01	Proper recharging procedures: see charging section of owner's manual

Supplemental ZEV Application for Certification - RGMXT00.0012

<u>Section No.</u>	<u>Title</u>
.02	Power requirements necessary to recharge vehicle Up to 19.6 kW (80 Amp wall service on 240V)
.09.00	Accessories which draw energy from the batteries Cabin Heater, Air Conditioner, Battery Heater, Accessory Power Module (12V)
.10.00	Other unique features (e.g. solar panels) SAE Type 3 Fast Charging
.11.00	Description of warning system(s) for maintenance / malfunction Service Vehicle Soon indicator on instrument panel cluster.
.01	Cut off terminal voltages for prevention of battery damage 200V
09.00.00	(Reserved)
10.00.00	(Reserved)
11.00.00	Starting and shifting schedules See GM Application for Certification RGMXT00.0012
12.00.00 through 16.00.00	(Reserved)
17.00.00	California requirements
.01.00	Statement of compliance
.01	General statement
.02	Drivability statement
.02.00	Supplemental Data and Certification Review Sheets
.03.00	(Reserved)
.04.00	Credits
.01	Description of multi-manufacturer arrangements Not applicable

Supplemental ZEV Application for Certification - RGMXT00.0012

<u>Section No.</u>	<u>Title</u>
.02	Credit calculation Per calculation for ZEV credits found within California Exhaust Emission Standards and Test Procedures for the 2018 and Subsequent Model Zero-Emission Vehicles, and Hybrid Electric Vehicles in the Passenger Car, Light-Duty Truck, and Medium Duty Vehicle Classes, adopted March 22, 2012 General Motors Classifies the Hummer EV as a Medium Duty Passenger Vehicle. Per referenced regulations the ZEV Credit shall be = 4.00.
.05.00	Vehicle Safety
.01	All information for safe operation of vehicle See first responder section of Owner's Manual
.02	Information on safe handling of battery system See first responder section of Owner's Manual
.03	Description of emergency procedures See first responder section of Owner's Manual
.06.00	(Reserved)