



## Certification Summary Information Report

<b>Test Group</b>	PTSLV00.0L23		<b>Evaporative/Refueling Family</b>		--					
<b>Models Covered by this Certificate</b>										
<b>Carline Manufacturer</b>	<b>Division</b>	<b>Carline</b>	<b>Certification Region Code(s)</b>	<b>Drive System</b>	<b>Trans - Type</b>	<b>- # of Gears</b>	<b>Trans - Lockup</b>			
Tesla, Inc.	1 - Tesla Motors	92 - Model 3 Long Range AWD	Federal	All Wheel Drive	Automatic	1	No			
Tesla, Inc.	1 - Tesla Motors	92 - Model 3 Long Range AWD	California + CAA Section 177 states	All Wheel Drive	Automatic	1	No			
Tesla, Inc.	1 - Tesla Motors	95 - Model 3 Performance AWD	Federal	All Wheel Drive	Automatic	1	No			
Tesla, Inc.	1 - Tesla Motors	95 - Model 3 Performance AWD	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>										
<b>Test Group Fuel</b>	<b>FTP</b>	<b>US06</b>	<b>SC03</b>	<b>Cold CO</b>	<b>Highway</b>	<b>EPA City Litmus Value</b>	<b>EPA City Litmus Threshold</b>	<b>EPA Highway Litmus Value</b>	<b>EPA Highway Litmus Threshold</b>	<b>CREE Weighting Factor</b>
Electricity	--	--	--	--	--	--	--	--	--	--
<b>SFTP LEV-III Official Test Numbers</b>										
<b>Test Group Fuel</b>	<b>FTP</b>		<b>US06</b>		<b>SC03</b>					
Electricity	--		--		--					
<b>Official Charge Depleting Test Numbers</b>										
<b>Test Group Fuel</b>	<b>UDDS</b>			<b>Highway</b>						
Electricity	NTSL10071408			NTSL10071409						
Electricity	MTSL10066779			MTSL10066780						

## Certification Summary Information Report

Test Group	PTSLV00.0L23	Evaporative/Refueling Family	--
<b>Hybrid Electric Vehicle And Fuel Cell Information</b>			
Rechargeable Energy Storage System	Battery(s)	Rechargeable Energy Storage System, if Other	--
Battery Type	Lithium Ion	Number of Battery Packs	1
Total Voltage of Battery Packs	360	Battery Energy Capacity	235
Battery Specific Energy	165	Battery Charger Type	On-Board
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)	4		
Motor/Generator Type 1	AC Induction	Rated Motor/Generator Power	131
Motor/Generator Type 2	AC 3 PHASE PERMANENT MAGNET	Rated Motor/Generator Power	195
Motor/Generator Type 3	AC Induction	Rated Motor/Generator Power	98
Motor/Generator Type 4	AC 3 PHASE PERMANENT MAGNET	Rated Motor/Generator Power	190
Mfr Fuel Cell Description	--		
Fuel Cell On-Board H2 Storage Capacity (kg)	--	Usable H2 Fill Capacity (kg)	--
Mfr Hybrid Electric/ Electric Vehicle Comments	2 carlines (Long Range, Performance) are available for 2023 MY Model 3 AWD vehicles. Base Front - 98 kW; Rear - 195 kW Perf Front - 131 kW; Rear - 190 kW		

### Certification Summary Information Report

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**Emission Data Vehicle Information**

Vehicle ID / Configuration	3D221-731645 / 0	Manufacturer Vehicle Configuration Number	0
Original Test Group Name	MTSLV00.0L23	Original Evaporative/Refueling Family	--
Original Test Vehicle Model Year	2021		
<b>Vehicle Model</b>			
Represented Test Vehicle Make	Tesla	Represented Test Vehicle Model	Model 3 Performance AWD

**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	1
Odometer Correction -- Initial	1	- = System Miles is equal to (Test odometer reading - Initial system miles) * Correction factor	
Odometer Correction Sign			
Odometer Correction Units	Miles		
Engine Code	L23	Rated Horsepower	430
Displacement (liters)	0.001	Air Aspiration Method, if 'Other'	
Air Aspiration Method	Naturally Aspirated	Air Aspiration Device Configuration	--
Number of Air Aspiration Devices	--	Drive Mode While Testing	All Wheel Drive
Charge Air Cooler Type	--	Aged Emission Components	4,000 (mi)
Shift Indicator Light Usage	Not equipped	Equivalent Test Weight (pounds)	4250
Curb Weight (lbs)	4065	N/V Ratio	116.1
GVWR (lbs)	4893		
Axle Ratio	9.04	# of Transmission Gears	1
Transmission Type	Automatic	Creeper Gear	No
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	49.01	-0.2001	0.02	0.77	-0.2411	0.0178	11.9
Cold CO	53.91	-0.2201	0.022	-12.74	-0.3397	0.01942	N/A

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<b>Test Group</b>	PTSLV00.0L23	<b>Evaporative/Refueling Family</b>	--
<b>Emission Control Device Comments</b>	No Emissions Control Device - Pure Electric		
<b>Manufacturer Test Vehicle Comments</b>	This is 2021 Model 3 Performance AWD; Front Motor Power - 131 kW; Rear Motor Power - 190 kW;		
<b>Test #</b>	<b>MTSL10066781</b>	<b>Test Procedure</b>	<b>2 - CVS 75 and later (w/o can. load)</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	62 - Electricity
<b>Test Date</b>	07/29/2020	<b>Fuel</b>	Electricity
<b>Fuel Batch ID</b>	--	<b>Fuel Calibration Number</b>	--
<b>Vehicle Class</b>	LDV/Passenger Car	<b>DF Type</b>	EPA Assigned
<b>Verify Test Lab ID</b>	Tesla Kato		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	4029	<b>Odometer Units</b>	M
<b>4WD Test Dyno</b>	Yes	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	--		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 86 (+/- 2 mph, +/- 1 sec)	<b>Road Speed Fan Usage</b>	Yes

## Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (kilowatt-hour per 100 miles)
<b>CO (Carbon Monoxide)</b>	0	--
<b>DT-ASCR (Drive Trace Absolute Speed Change Rating)</b>	-0.6981	--
<b>DT-EER (Drive Trace Energy Economy Rating)</b>	0.455	--
<b>DT-IWRR (Drive Trace Inertia Work Ratio Rating)</b>	-0.5319	--
<b>MFR FE (Manufacturer Fuel Economy)</b>	18.3722	183.4293117
<b>NOX (Nitrogen Oxide)</b>	0	--
<b>NMOG (Non-methane organic gases)</b>	0	--

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

## Manufacturer Test Comments

Internal Test results (CVS-75 UDDS Ambient) for MY2021 Model 3 Performance AWD. AC wh/mi @ 50 % SOC - Bag 1 - 214.21; Bag 2- 182.44; Bag 3 - 203.83; Bag 4 - 178.73; Test Start Odometer Reading 4029 Test Start Propulsion System Mileage 3163

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	Pass
CA	150,000 miles	California ZEV	CO	0	--	--	--	0	--	0	0	Pass

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<b>Test Group</b>	PTSLV00.0L23	<b>Evaporative/Refueling Family</b>	--
<b>Test #</b>	<b>MTSL10066782</b>	<b>Test Procedure</b>	<b>3 - HWFE</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	62 - Electricity
<b>Test Date</b>	07/29/2020	<b>Fuel</b>	N/A
<b>Fuel Batch ID</b>	--	<b>Fuel Calibration Number</b>	--
<b>Vehicle Class</b>	N/A	<b>DF Type</b>	EPA Assigned
<b>Verify Test Lab ID</b>	Tesla Kato		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	4029	<b>Odometer Units</b>	M
<b>4WD Test Dyno</b>	Yes	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	--		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 86 (+/- 2 mph, +/- 1 sec)	<b>Road Speed Fan Usage</b>	Yes

## Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (kilowatt-hour per 100 miles)
<b>DT-ASCR (Drive Trace Absolute Speed Change Rating)</b>	2.2545	--
<b>DT-EER (Drive Trace Energy Economy Rating)</b>	0.7719	--
<b>DT-IWRR (Drive Trace Inertia Work Ratio Rating)</b>	2.4091	--
<b>MFR FE (Manufacturer Fuel Economy)</b>	19.7923	170.2682356
<b>NOX (Nitrogen Oxide)</b>	0	--
<b>NMOG (Non-methane organic gases)</b>	0	--

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

## Manufacturer Test Comments

Internal Test results (HWY 3) for MY2021 Model 3 Performance AWD. The HFET result from the full discharge MCT is used for the 2-part and 5-part calculations. AC wh/mi - 197.92; Test Start Odometer Reading 4029 Test Start Propulsion System Mileage 3163

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<b>Test Group</b>	PTSLV00.0L23	<b>Evaporative/Refueling Family</b>	--
<b>Test #</b>	<b>MTSL10066785</b>	<b>Test Procedure</b>	<b>90 - US06</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	62 - Electricity
<b>Test Date</b>	07/29/2020	<b>Fuel</b>	N/A
<b>Fuel Batch ID</b>	--	<b>Fuel Calibration Number</b>	--
<b>Vehicle Class</b>	N/A	<b>DF Type</b>	EPA Assigned
<b>Verify Test Lab ID</b>	Tesla Kato		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	4029	<b>Odometer Units</b>	M
<b>4WD Test Dyno</b>	Yes	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	--		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 86 (+/- 2 mph, +/- 1 sec)	<b>Road Speed Fan Usage</b>	Yes

## Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (kilowatt-hour per 100 miles)
CO (Carbon Monoxide)	0	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-3.6881	--
DT-EER (Drive Trace Energy Economy Rating)	-1.1681	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-5.7919	--
MFR FE (Manufacturer Fuel Economy)	26.2338	128.4602307
NOX (Nitrogen Oxide)	0	--
NMOG (Non-methane organic gases)	0	--

## Manufacturer Test Comments

Internal Test results (US 06) for MY2021 Model 3 Performance AWD. US 06 AC wh/mi @ 50% SOC - City:262.34; Hwy:258.58. Test Start Odometer Reading 4029 Test Start Propulsion System Mileage 3163

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<b>Test Group</b>	PTSLV00.0L23	<b>Evaporative/Refueling Family</b>	--
<b>Test #</b>	<b>MTSL10066784</b>	<b>Test Procedure</b>	<b>95 - SC03</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	62 - Electricity
<b>Test Date</b>	07/29/2020	<b>Fuel</b>	N/A
<b>Fuel Batch ID</b>	--	<b>Fuel Calibration Number</b>	--
<b>Vehicle Class</b>	N/A	<b>DF Type</b>	EPA Assigned
<b>Verify Test Lab ID</b>	Tesla Kato		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	4029	<b>Odometer Units</b>	M
<b>4WD Test Dyno</b>	Yes	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	--		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 86 (+/- 2 mph, +/- 1 sec)	<b>Road Speed Fan Usage</b>	Yes

## Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (kilowatt-hour per 100 miles)
<b>CO (Carbon Monoxide)</b>	0	--
<b>DT-ASCR (Drive Trace Absolute Speed Change Rating)</b>	-0.3647	--
<b>DT-EER (Drive Trace Energy Economy Rating)</b>	-0.738	--
<b>DT-IWRR (Drive Trace Inertia Work Ratio Rating)</b>	-0.3081	--
<b>MFR FE (Manufacturer Fuel Economy)</b>	24.02	140.2997502
<b>NOX (Nitrogen Oxide)</b>	0	--
<b>NMOG (Non-methane organic gases)</b>	0	--

## Manufacturer Test Comments

Internal Test results (SC 03) for MY2021 Model 3 Performance AWD. AC wh/mi - 240.2 at 50% SOC. Test Start Odometer Reading 4029 Test Start Propulsion System Mileage 3163

## Certification Summary Information Report

Test Group	PTSLV00.0L23	Evaporative/Refueling Family	--
<b>Test #</b>	<b>MTSL10066779</b>	<b>Test Procedure</b>	<b>81 - Charge Depleting UDDS</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	62 - Electricity
<b>Test Date</b>	07/29/2020	<b>Fuel</b>	Electricity
<b>Fuel Batch ID</b>	--	<b>Fuel Calibration Number</b>	--
<b>Vehicle Class</b>	LDV/Passenger Car	<b>DF Type</b>	EPA Assigned
<b>Verify Test Lab ID</b>	Tesla Kato		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	4029	<b>Odometer Units</b>	M
<b>4WD Test Dyno</b>	Yes	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	--		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 86 (+/- 2 mph, +/- 1 sec)	<b>Road Speed Fan Usage</b>	Yes
<b>PHEV/EV Charge Depleting Test Information</b>			
<b>Recharge Event Voltage</b>	208	<b>Recharge Event Energy (kiloWatt-hours)</b>	94.242
<b>Charge Depleting Range (Calculated miles)</b>	440	<b>Charge Depleting Range (Actual miles)</b>	440
<b>All Electric Range Unadjusted (miles)</b>	--	<b>Derived 5-Cycle Coefficient Model Year</b>	--
<b>Equivalent All Electric Range (miles)</b>	440		
<b>Number of Charge Depleting Bags/Phases Conducted</b>	4	<b>Transition Bag/Phase Number</b>	--
<b>Charge Depleting Bag/Phase</b>			
Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result	
1	Carbon Monoxide	0	
2	Carbon dioxide	0	
3	Carbon-Related Exhaust Emissions	0	
4	Drive Trace Absolute Speed Change Rating	1.0233	
5	Drive Trace Energy Economy Rating	0.7412	
6	Drive Trace Inertia Work Ratio Rating	1.7467	
7	Manufacturer Fuel Economy	157.32	
8	Nitrogen Oxide	0	
9	Non-methane organic gases	0	
10	Non-methane organic gases plus Nitrogen Oxides	999.999	
11	Particulate Matter	0	
12	System End State of Charge Watt-hours	80.818	
13	System Start State of Charge Watt-hours	0	
<b>Manufacturer Test Comments</b>	Internal Test results for MY2021 Model 3 Performance AWD. Range determined by using SAE J1634 Multi-cycle test procedure. END-SOC 80818 wh (system gave error limited to 4 digits). MCT dc wh/mi is attached with EPA application. Added NMOG Test results. Test Start Odometer Reading 4029 Test Start Propulsion System Mileage 3163		

### Certification Summary Information Report

Test Group		PTSLV00.0L23				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	Pass
Fed	150,000 miles	Federal Tier 3 Bin 0	CREE	0	--	--	--	0	--	0	--	--
CA	150,000 miles	California ZEV	CO	0	--	--	--	0	--	0	0	Pass
CA	150,000 miles	California ZEV	CREE	0	--	--	--	0	--	0	--	--

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Test Group	PTSLV00.0L23	Evaporative/Refueling Family	--
<b>Test #</b>	<b>MTSL10066780</b>	<b>Test Procedure</b>	<b>84 - Charge Depleting Highway</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	62 - Electricity
<b>Test Date</b>	07/29/2020	<b>Fuel</b>	Electricity
<b>Fuel Batch ID</b>	--	<b>Fuel Calibration Number</b>	--
<b>Vehicle Class</b>	LDV/Passenger Car	<b>DF Type</b>	EPA Assigned
<b>Verify Test Lab ID</b>	Tesla Kato		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	4029	<b>Odometer Units</b>	M
<b>4WD Test Dyno</b>	Yes	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	--		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 86 (+/- 2 mph, +/- 1 sec)	<b>Road Speed Fan Usage</b>	Yes
<b>PHEV/EV Charge Depleting Test Information</b>			
<b>Recharge Event Voltage</b>	208	<b>Recharge Event Energy (kiloWatt-hours)</b>	94.242
<b>Charge Depleting Range (Calculated miles)</b>	400	<b>Charge Depleting Range (Actual miles)</b>	400
<b>All Electric Range Unadjusted (miles)</b>	--	<b>Derived 5-Cycle Coefficient Model Year</b>	--
<b>Equivalent All Electric Range (miles)</b>	400		
<b>Number of Charge Depleting Bags/Phases Conducted</b>	2	<b>Transition Bag/Phase Number</b>	--
<b>Charge Depleting Bag/Phase</b>			
Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result	
1	Carbon Monoxide	0	
2	Carbon dioxide	0	
3	Carbon-Related Exhaust Emissions	0	
4	Drive Trace Absolute Speed Change Rating	1.5497	
5	Drive Trace Energy Economy Rating	0.3187	
6	Drive Trace Inertia Work Ratio Rating	2.0014	
7	Manufacturer Fuel Economy	143.11	
8	Nitrogen Oxide	0	
9	Non-methane organic gases	0	
10	Non-methane organic gases plus Nitrogen Oxides	999.999	
11	Particulate Matter	0	
12	System End State of Charge Watt-hours	80.818	
13	System Start State of Charge Watt-hours	0	
<b>Manufacturer Test Comments</b>	Internal Test results for MY2021 Model 3 Performance AWD. Range determined by using SAE J1634 Multi-cycle test procedure. END-SOC - 80818 wh (System error limited to 4 digits). MCT dc wh/mi is attached with application. Test Start Odometer Reading 4029 Test Start Propulsion System Mileage 3163		

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Test Group		PTSLV00.0L23				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	Pass
Fed	150,000 miles	Federal Tier 3 Bin 0	CREE	0	--	--	--	0	--	0	--	--
CA	150,000 miles	California ZEV	CO	0	--	--	--	0	--	0	0	Pass
CA	150,000 miles	California ZEV	CREE	0	--	--	--	0	--	0	--	--

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<b>Test Group</b>	PTSLV00.0L23	<b>Evaporative/Refueling Family</b>	--
<b>Test #</b>	<b>MTSL10066783</b>	<b>Test Procedure</b>	<b>86 - Charge Depleting 20 Degree F FTP</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	62 - Electricity
<b>Test Date</b>	07/29/2020	<b>Fuel</b>	N/A
<b>Fuel Batch ID</b>	--	<b>Fuel Calibration Number</b>	--
<b>Vehicle Class</b>	N/A	<b>DF Type</b>	EPA Assigned
<b>Verify Test Lab ID</b>	Tesla Kato		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	4029	<b>Odometer Units</b>	M
<b>4WD Test Dyno</b>	Yes	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	--		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 86 (+/- 2 mph, +/- 1 sec)	<b>Road Speed Fan Usage</b>	Yes

**PHEV/EV Charge Depleting Test Information**

<b>Recharge Event Voltage</b>	208	<b>Recharge Event Energy (kiloWatt-hours)</b>	90.215
<b>Charge Depleting Range (Calculated miles)</b>	282	<b>Charge Depleting Range (Actual miles)</b>	282
<b>All Electric Range Unadjusted (miles)</b>	--	<b>Derived 5-Cycle Coefficient Model Year</b>	--
<b>Equivalent All Electric Range (miles)</b>	282		
<b>Number of Charge Depleting Bags/Phases Conducted</b>	38	<b>Transition Bag/Phase Number</b>	--

**Charge Depleting Bag/Phase**

Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result
1	Carbon Monoxide	0
2	Carbon dioxide	0
3	Carbon-Related Exhaust Emissions	0
4	Drive Trace Absolute Speed Change Rating	1.1751
5	Drive Trace Energy Economy Rating	1.2024
6	Drive Trace Inertia Work Ratio Rating	1.961
7	Manufacturer Fuel Economy	27.4276
8	Nitrogen Oxide	0
9	Non-methane organic gases	0
10	Non-methane organic gases plus Nitrogen Oxides	999.999
11	Particulate Matter	0
12	System End State of Charge Watt-hours	77.364
13	System Start State of Charge Watt-hours	0

### Certification Summary Information Report

Test Group	PTSLV00.0L23	Evaporative/Refueling Family	--
<b>Manufacturer Test Comments</b>	Internal Test results(Cold UDDS) for MY2021 Model 3 Performance AWD. END SOC is 77364 wh (System error limited to 4 digits) for full discharge. AC wh/mi - Bag 1 - 463.11; Bag 2 - 406.39; Bag 3 - 420.74; Bag - 4- 334.54; Tesla did not use external current measurement after the full cold discharge test, since AC energy is not used in any part of the 5-cycle consumption calculation. The stated recharge energy is an estimate using the DC energy from the cold discharge test and the round trip energy efficiency from the full discharge MCT. Test Start Odometer Reading 4029 Test Start Propulsion System Mileage 3163		

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<b>Test Group</b>	PTSLV00.0L23		<b>Evaporative/Refueling Family</b>	--							
<b>Emission Data Vehicle Information</b>											
<b>Vehicle ID / Configuration</b>	3D322-028886 / 0		<b>Manufacturer Vehicle Configuration Number</b>	0							
<b>Original Test Group Name</b>	NTSLV00.0L23		<b>Original Evaporative/Refueling Family</b>	--							
<b>Original Test Vehicle Model Year</b>	2022										
<b>Vehicle Model</b>											
<b>Represented Test Vehicle Make</b>	Tesla		<b>Represented Test Vehicle Model</b>	Model 3 Long Range AWD							
<b>Leak Family Details</b>											
<b>Leak Family Identifier</b>	--		<b>Leak Family Name</b>	--							
<b>Drive Sources and Fuel System Details</b>											
<table border="1"> <thead> <tr> <th>Drive Source and Fuel#</th> <th>Drive Source</th> <th>Fuel</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Electric Motor</td> <td>Electricity</td> </tr> </tbody> </table>						Drive Source and Fuel#	Drive Source	Fuel	1	Electric Motor	Electricity
Drive Source and Fuel#	Drive Source	Fuel									
1	Electric Motor	Electricity									
<b>Hybrid Indicator</b>	No		<b>Multiple Fuel Combustion</b>	--							
<b>Multiple Fuel Storage</b>	--		<b>Rechargeable Energy Storage System Indicator</b>	Yes							
<b>Fuel Cell Indicator</b>	No		<b>Rechargeable Energy Storage System, if 'Other'</b>	--							
<b>Rechargeable Energy Storage System</b>	Battery(s)										
<b>Off-board charge Capable Indicator</b>	Yes		<b>Odometer Correction Factor</b>	1							
<b>Odometer Correction -- Initial</b>	1										
<b>Odometer Correction Sign</b>	- = System Miles is equal to (Test odometer reading - Initial system miles) * Correction factor										
<b>Odometer Correction Units</b>	Miles										
<b>Engine Code</b>	L23		<b>Rated Horsepower</b>	393							
<b>Displacement (liters)</b>	0.001		<b>Air Aspiration Method, if 'Other'</b>								
<b>Air Aspiration Method</b>	Naturally Aspirated		<b>Air Aspiration Device Configuration</b>	--							
<b>Number of Air Aspiration Devices</b>	--		<b>Drive Mode While Testing</b>	All Wheel Drive							
<b>Charge Air Cooler Type</b>	--		<b>Aged Emission Components</b>	4,000 (mi)							
<b>Shift Indicator Light Usage</b>	Not equipped		<b>Equivalent Test Weight (pounds)</b>	4250							
<b>Curb Weight (lbs)</b>	4052		<b>N/V Ratio</b>	115							
<b>GVWR (lbs)</b>	4883										
<b>Axle Ratio</b>	1		<b># of Transmission Gears</b>	1							
<b>Transmission Type</b>	Automatic		<b>Creeper Gear</b>	No							
<b>Transmission Lockup</b>	No										
<b>Dynamometer Coefficients:</b>											
<b>Target Coefficients</b>			<b>Set Coefficients</b>								
<b>Coefficient Category</b>	<b>A (lbf)</b>	<b>B (lbf/mph)</b>	<b>C (lbf/mph**2)</b>	<b>A (lbf)</b>	<b>B (lbf/mph)</b>	<b>C (lbf/mph**2)</b>	<b>EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients</b>				
<b>City/Highway/Evap</b>	34.98	0.0865	0.0148	-6.5	-0.0468	0.0139	10.2				
<b>Cold CO</b>	38.48	0.0951	0.0163	-11.33	-0.1716	0.0159	N/A				

## Certification Summary Information Report

<b>Test Group</b>	PTSLV00.0L23	<b>Evaporative/Refueling Family</b>	--
<b>Emission Control Device Comments</b>	No Emissions Control Device - Pure Electric		
<b>Manufacturer Test Vehicle Comments</b>	This is MY2022 Model 3 Long Range AWD; Front Motor Power - 98 kW; Rear Motor Power - 195 kW;		
<b>Test #</b>	<b>NTSL10071410</b>	<b>Test Procedure</b>	<b>2 - CVS 75 and later (w/o can. load)</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	62 - Electricity
<b>Test Date</b>	08/12/2021	<b>Fuel</b>	Electricity
<b>Fuel Batch ID</b>	--	<b>Fuel Calibration Number</b>	--
<b>Vehicle Class</b>	LDV/Passenger Car	<b>DF Type</b>	EPA Assigned
<b>Verify Test Lab ID</b>	Tesla Kato		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	2219	<b>Odometer Units</b>	M
<b>4WD Test Dyno</b>	Yes	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	--		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 86 (+/- 2 mph, +/- 1 sec)	<b>Road Speed Fan Usage</b>	Yes

## Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (kilowatt-hour per 100 miles)
CO (Carbon Monoxide)	0	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-0.8234	--
DT-EER (Drive Trace Energy Economy Rating)	-0.6031	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-0.9789	--
MFR FE (Manufacturer Fuel Economy)	16.2522	207.3565425
NOX (Nitrogen Oxide)	0	--
NMOG (Non-methane organic gases)	0	--

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

## Manufacturer Test Comments

Internal Test results (CVS-75 UDDS Ambient) for MY2022 Model 3 Long Range AWD. AC wh/mi @ 50 % SOC - Bag 1 - 184.7; Bag 2- 161.7; Bag 3 - 179.7; Bag 4 - 160.9;

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	Pass
CA	150,000 miles	California ZEV	CO	0	--	--	--	0	--	0	0	Pass

## Certification Summary Information Report

<b>Test Group</b>	PTSLV00.0L23	<b>Evaporative/Refueling Family</b>	--
<b>Test #</b>	<b>NTSL10071411</b>	<b>Test Procedure</b>	<b>3 - HWFE</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	62 - Electricity
<b>Test Date</b>	08/12/2021	<b>Fuel</b>	N/A
<b>Fuel Batch ID</b>	--	<b>Fuel Calibration Number</b>	--
<b>Vehicle Class</b>	N/A	<b>DF Type</b>	EPA Assigned
<b>Verify Test Lab ID</b>	Tesla Kato		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	2219	<b>Odometer Units</b>	M
<b>4WD Test Dyno</b>	Yes	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	--		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 86 (+/- 2 mph, +/- 1 sec)	<b>Road Speed Fan Usage</b>	Yes

## Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (kilowatt-hour per 100 miles)
<b>DT-ASCR (Drive Trace Absolute Speed Change Rating)</b>	-0.4733	--
<b>DT-EER (Drive Trace Energy Economy Rating)</b>	-0.594	--
<b>DT-IWRR (Drive Trace Inertia Work Ratio Rating)</b>	-0.9461	--
<b>MFR FE (Manufacturer Fuel Economy)</b>	17.612	191.346809
<b>NOX (Nitrogen Oxide)</b>	0	--
<b>NMOG (Non-methane organic gases)</b>	0	--

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

## Manufacturer Test Comments

Internal Test results (HWY 3) for MY2022 Model 3 Long Range AWD. The HFET result from the full discharge MCT is used for the 2-part and 5-part calculations. AC wh/mi - 176.1

## Certification Summary Information Report

<b>Test Group</b>	PTSLV00.0L23	<b>Evaporative/Refueling Family</b>	--
<b>Test #</b>	<b>NTSL10071413</b>	<b>Test Procedure</b>	<b>90 - US06</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	62 - Electricity
<b>Test Date</b>	08/12/2021	<b>Fuel</b>	N/A
<b>Fuel Batch ID</b>	--	<b>Fuel Calibration Number</b>	--
<b>Vehicle Class</b>	N/A	<b>DF Type</b>	EPA Assigned
<b>Verify Test Lab ID</b>	Tesla Kato		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	2219	<b>Odometer Units</b>	M
<b>4WD Test Dyno</b>	Yes	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	--		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 86 (+/- 2 mph, +/- 1 sec)	<b>Road Speed Fan Usage</b>	Yes

## Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (kilowatt-hour per 100 miles)
<b>CO (Carbon Monoxide)</b>	0	--
<b>DT-ASCR (Drive Trace Absolute Speed Change Rating)</b>	-0.9522	--
<b>DT-EER (Drive Trace Energy Economy Rating)</b>	-1.1803	--
<b>DT-IWRR (Drive Trace Inertia Work Ratio Rating)</b>	-2.142	--
<b>MFR FE (Manufacturer Fuel Economy)</b>	24.2052	139.226282
<b>NOX (Nitrogen Oxide)</b>	0	--
<b>NMOG (Non-methane organic gases)</b>	0	--

## Manufacturer Test Comments

Internal Test results (US 06) for MY2022 Model 3 Long Range AWD. US06 AC wh/mi @ 50% SOC - City:242.1; Hwy:232.4.

## Certification Summary Information Report

<b>Test Group</b>	PTSLV00.0L23	<b>Evaporative/Refueling Family</b>	--
<b>Test #</b>	<b>NTSL10071414</b>	<b>Test Procedure</b>	<b>95 - SC03</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	62 - Electricity
<b>Test Date</b>	08/12/2021	<b>Fuel</b>	N/A
<b>Fuel Batch ID</b>	--	<b>Fuel Calibration Number</b>	--
<b>Vehicle Class</b>	N/A	<b>DF Type</b>	EPA Assigned
<b>Verify Test Lab ID</b>	Tesla Kato		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	2219	<b>Odometer Units</b>	M
<b>4WD Test Dyno</b>	Yes	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	--		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 86 (+/- 2 mph, +/- 1 sec)	<b>Road Speed Fan Usage</b>	Yes

## Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (kilowatt-hour per 100 miles)
CO (Carbon Monoxide)	0	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-0.2255	--
DT-EER (Drive Trace Energy Economy Rating)	0.3267	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-0.4356	--
MFR FE (Manufacturer Fuel Economy)	22.0161	153.0697989
NOX (Nitrogen Oxide)	0	--
NMOG (Non-methane organic gases)	0	--

## Manufacturer Test Comments

Internal Test results (SC 03) for MY2022 Model 3 Long Range AWD. AC wh/mi - 220.2 at 50% SOC.

## Certification Summary Information Report

Test Group	PTSLV00.0L23	Evaporative/Refueling Family	--
<b>Test #</b>	<b>NTSL10071408</b>	<b>Test Procedure</b>	<b>81 - Charge Depleting UDDS</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	62 - Electricity
<b>Test Date</b>	08/12/2021	<b>Fuel</b>	Electricity
<b>Fuel Batch ID</b>	--	<b>Fuel Calibration Number</b>	--
<b>Vehicle Class</b>	LDV/Passenger Car	<b>DF Type</b>	EPA Assigned
<b>Verify Test Lab ID</b>	Tesla Kato		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	2219	<b>Odometer Units</b>	M
<b>4WD Test Dyno</b>	Yes	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	--		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 86 (+/- 2 mph, +/- 1 sec)	<b>Road Speed Fan Usage</b>	Yes
<b>PHEV/EV Charge Depleting Test Information</b>			
<b>Recharge Event Voltage</b>	208	<b>Recharge Event Energy (kiloWatt-hours)</b>	92.243
<b>Charge Depleting Range (Calculated miles)</b>	505	<b>Charge Depleting Range (Actual miles)</b>	505
<b>All Electric Range Unadjusted (miles)</b>	--	<b>Derived 5-Cycle Coefficient Model Year</b>	--
<b>Equivalent All Electric Range (miles)</b>	505		
<b>Number of Charge Depleting Bags/Phases Conducted</b>	4	<b>Transition Bag/Phase Number</b>	--
<b>Charge Depleting Bag/Phase</b>			
Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result	
1	Carbon Monoxide	0	
2	Carbon dioxide	0	
3	Carbon-Related Exhaust Emissions	0	
4	Drive Trace Absolute Speed Change Rating	2.5286	
5	Drive Trace Energy Economy Rating	1.9456	
6	Drive Trace Inertia Work Ratio Rating	4.1934	
7	Manufacturer Fuel Economy	184.49	
8	Nitrogen Oxide	0	
9	Non-methane organic gases	0	
10	Non-methane organic gases plus Nitrogen Oxides	999.999	
11	Particulate Matter	0	
12	System End State of Charge Watt-hours	82.067	
13	System Start State of Charge Watt-hours	0	
<b>Manufacturer Test Comments</b>	Internal Test results for MY2022 Model 3 Long Range AWD. Range determined by using SAE J1634 Multi-cycle test procedure. END-SOC 82067 wh (system gave error limited to 4 digits). MCT dc wh/mi is attached with EPA application. Added NMOG Test results.		

### Certification Summary Information Report

<b>Test Group</b>	PTSLV00.0L23	<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
Fed	150,000 miles	Federal Tier 3 Bin 0	CO	0	--	--	--	0	--	0	0	Pass
Fed	150,000 miles	Federal Tier 3 Bin 0	CREE	0	--	--	--	0	--	0	--	--
CA	150,000 miles	California ZEV	CO	0	--	--	--	0	--	0	0	Pass
CA	150,000 miles	California ZEV	CREE	0	--	--	--	0	--	0	--	--

## Certification Summary Information Report

<b>Test Group</b>	PTSLV00.0L23	<b>Evaporative/Refueling Family</b>	--
<b>Test #</b>	<b>NTSL10071409</b>	<b>Test Procedure</b>	<b>84 - Charge Depleting Highway</b>
<b>Exhaust Test # for this Evap Test</b>	--	<b>Test Fuel Type</b>	62 - Electricity
<b>Test Date</b>	08/12/2021	<b>Fuel</b>	Electricity
<b>Fuel Batch ID</b>	--	<b>Fuel Calibration Number</b>	--
<b>Vehicle Class</b>	LDV/Passenger Car	<b>DF Type</b>	EPA Assigned
<b>Verify Test Lab ID</b>	Tesla Kato		
<b>E10 Evaporative Test Measurement Method</b>	--		
<b>Test Start Odometer Reading</b>	2219	<b>Odometer Units</b>	M
<b>4WD Test Dyno</b>	Yes	<b>Diesel Adjustment Factor Usage</b>	--
<b>State of Charge Delta</b>	--		
<b>Drive Cycle Speed Tolerance Criteria</b>	Used Part 86 (+/- 2 mph, +/- 1 sec)	<b>Road Speed Fan Usage</b>	Yes

**PHEV/EV Charge Depleting Test Information**

<b>Recharge Event Voltage</b>	208	<b>Recharge Event Energy (kiloWatt-hours)</b>	92.243
<b>Charge Depleting Range (Calculated miles)</b>	475	<b>Charge Depleting Range (Actual miles)</b>	475
<b>All Electric Range Unadjusted (miles)</b>	--	<b>Derived 5-Cycle Coefficient Model Year</b>	--
<b>Equivalent All Electric Range (miles)</b>	475		
<b>Number of Charge Depleting Bags/Phases Conducted</b>	2	<b>Transition Bag/Phase Number</b>	--

**Charge Depleting Bag/Phase**

Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result
1	Carbon Monoxide	0
2	Carbon dioxide	0
3	Carbon-Related Exhaust Emissions	0
4	Drive Trace Absolute Speed Change Rating	6.9603
5	Drive Trace Energy Economy Rating	1.1477
6	Drive Trace Inertia Work Ratio Rating	8.7626
7	Manufacturer Fuel Economy	173.4
8	Nitrogen Oxide	0
9	Non-methane organic gases	0
10	Non-methane organic gases plus Nitrogen Oxides	999.999
11	Particulate Matter	0
12	System End State of Charge Watt-hours	82.067
13	System Start State of Charge Watt-hours	0

**Manufacturer Test Comments**

Internal Test results for MY2022 Model 3 Long Range AWD. Range determined by using SAE J1634 Multi-cycle test procedure. END-SOC - 82067 wh (System error limited to 4 digits). MCT dc wh/mi is attached with application.

### Certification Summary Information Report

Test Group		PTSLV00.0L23				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	Pass
Fed	150,000 miles	Federal Tier 3 Bin 0	CREE	0	--	--	--	0	--	0	--	--
CA	150,000 miles	California ZEV	CO	0	--	--	--	0	--	0	0	Pass
CA	150,000 miles	California ZEV	CREE	0	--	--	--	0	--	0	--	--



## Certification Summary Information Report

<b>Test Group</b>	PTSLV00.0L23	<b>Evaporative/Refueling Family</b>	--
<b>Manufacturer Test Comments</b>	Internal Test results(Cold UDDS) for MY2022 Model 3 Long Range AWD. END SOC is 76577 wh (System error limited to 4 digits) for full discharge. AC wh/mi - Bag 1 - 381.3; Bag 2 - 353.2; Bag 3 - 358.6; Bag 4 - 296.2 Tesla did not use external current measurement after the full cold discharge test, since AC energy is not used in any part of the 5-cycle consumption calculation. The stated recharge energy is an estimate using the DC energy from the cold discharge test and the round trip energy efficiency from the full discharge MCT.		
<b>Fuel Properties</b>			

### Certification Summary Information Report

<b>Test Group</b>	PTSLV00.0L23	<b>Evaporative/Refueling Family</b>	--
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#### Consolidated List of Standards

**Exhaust Standards**

<b>Cert Region</b>	Federal	<b>Cert/In-Use Code</b>	Cert
<b>Vehicle Class</b>	LDV/Passenger Car	<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)

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

<b>Cert Region</b>	Federal	<b>Cert/In-Use Code</b>	Cert
<b>Vehicle Class</b>	LDV/Passenger Car	<b>Standard Level</b>	Federal Tier 3 Bin 0
<b>Fuel</b>	Electricity	<b>Test Procedure</b>	Charge Depleting UDDS

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

<b>Cert Region</b>	California + CAA Section 177 states	<b>Cert/In-Use Code</b>	Cert
<b>Vehicle Class</b>	LDV/Passenger Car	<b>Standard Level</b>	California ZEV
<b>Fuel</b>	Electricity	<b>Test Procedure</b>	Charge Depleting UDDS

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

### Certification Summary Information Report

<b>Test Group</b>		PTSLV00.0L23			<b>Evaporative/Refueling Family</b>			--		
<b>Cert Region</b>		Federal			<b>Cert/In-Use Code</b>			Cert		
<b>Vehicle Class</b>		LDV/Passenger Car			<b>Standard Level</b>			Federal Tier 3 Bin 0		
<b>Fuel</b>		Electricity			<b>Test Procedure</b>			Charge Depleting Highway		
<b>Useful Life</b>	<b>Emission Name</b>	<b>Rounded Result</b>	<b>RAF</b>	<b>NMOG / NMHC</b>	<b>Upward Diesel Adjustment Factor</b>	<b>Downward Diesel Adjustment Factor</b>	<b>Mult DF</b>	<b>Add DF</b>	<b>Std</b>	
150,000 miles	CO	--	--	--	--	--	--	0	0	
150,000 miles	CO-COMP	--	--	--	--	--	--	0	0	
150,000 miles	CREE	--	--	--	--	--	--	0	0	
150,000 miles	NMOG+NOX-COMP	--	--	--	--	--	--	0	0	
<b>Cert Region</b>		California + CAA Section 177 states			<b>Cert/In-Use Code</b>			Cert		
<b>Vehicle Class</b>		LDV/Passenger Car			<b>Standard Level</b>			California ZEV		
<b>Fuel</b>		Electricity			<b>Test Procedure</b>			Charge Depleting Highway		
<b>Useful Life</b>	<b>Emission Name</b>	<b>Rounded Result</b>	<b>RAF</b>	<b>NMOG / NMHC</b>	<b>Upward Diesel Adjustment Factor</b>	<b>Downward Diesel Adjustment Factor</b>	<b>Mult DF</b>	<b>Add DF</b>	<b>Std</b>	
150,000 miles	CO	--	--	--	--	--	--	0	0	
150,000 miles	CO-COMP	--	--	--	--	--	--	0	0	
150,000 miles	CREE	--	--	--	--	--	--	0	0	
150,000 miles	NMOG+NOX-COMP	--	--	--	--	--	--	0	0	
<b>Cert Region</b>		California + CAA Section 177 states			<b>Cert/In-Use Code</b>			Cert		
<b>Vehicle Class</b>		LDV/Passenger Car			<b>Standard Level</b>			California ZEV		
<b>Fuel</b>		Electricity			<b>Test Procedure</b>			CVS 75 and later (w/o can. load)		
<b>Useful Life</b>	<b>Emission Name</b>	<b>Rounded Result</b>	<b>RAF</b>	<b>NMOG / NMHC</b>	<b>Upward Diesel Adjustment Factor</b>	<b>Downward Diesel Adjustment Factor</b>	<b>Mult DF</b>	<b>Add DF</b>	<b>Std</b>	
150,000 miles	CO	--	--	--	--	--	--	0	0	

## Certification Summary Information Report

Test Group	PTSLV00.0L23	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	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
<b>Certification Region</b>			
CA	California + CAA Section 177 states	FA	Federal
<b>Exhaust Emission Standard Level</b>			
B1	Federal Tier 2 Bin 1	L3ULEV340	California LEV-III ULEV340
B2	Federal Tier 2 Bin 2	L3ULEV250	California LEV-III ULEV250
B3	Federal Tier 2 Bin 3	L3ULEV200	California LEV-III ULEV200
B4	Federal Tier 2 Bin 4	L3SULEV170	California LEV-III SULEV170
B5	Federal Tier 2 Bin 5	L3SULEV150	California LEV-III SULEV150

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

## Certification Summary Information Report

Test Group	PTSLV00.0L23	Evaporative/Refueling Family	--
<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