

Certification Summary Information Report

Test Group		LTSLV00.0L23		Evaporative/Refueling Family		--					
Models Covered by this Certificate											
Carline Manufacturer	Division	Carline	Certification Region Code(s)	Drive System	Trans - Type	- # of Gears	Trans - Lockup				
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	92 - Model 3 Long Range AWD	Federal	All Wheel Drive	Automatic	1	No				
Tesla, Inc.	1 - Tesla Motors	93 - Model3 LongRange Perf. AWD (18")	Federal	All Wheel Drive	Automatic	1	No				
Tesla, Inc.	1 - Tesla Motors	95 - Model3 LongRange Perf. AWD (20")	California + CAA Section 177 states	All Wheel Drive	Automatic	1	No				
Tesla, Inc.	1 - Tesla Motors	95 - Model3 LongRange Perf. AWD (20")	Federal	All Wheel Drive	Automatic	1	No				
Tesla, Inc.	1 - Tesla Motors	94 - Model3 LongRange Perf. AWD (19")	California + CAA Section 177 states	All Wheel Drive	Automatic	1	No				
Tesla, Inc.	1 - Tesla Motors	94 - Model3 LongRange Perf. AWD (19")	Federal	All Wheel Drive	Automatic	1	No				
Tesla, Inc.	1 - Tesla Motors	93 - Model3 LongRange Perf. AWD (18")	California + CAA Section 177 states	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		--	--	--	--	--	--	--	--	--	--

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Test Group	LTSLV00.0L23	Evaporative/Refueling Family	--
SFTP LEV-III Official Test Numbers			
Test Group Fuel	FTP	US06	SC03
Electricity	--	--	--
Official Charge Depleting Test Numbers			
Test Group Fuel	UDDS	Highway	
Electricity	LTSL10062102	LTSL10062103	
Electricity	LTSL10061735	LTSL10061730	
Electricity	LTSL10062104	LTSL10062105	
Electricity	LTSL10062054	LTSL10062055	
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	350	Battery Energy Capacity	230
Battery Specific Energy	150	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)	2		
Motor/Generator Type 1	AC Induction	Rated Motor/Generator Power	147
Motor/Generator Type 2	AC 3 PHASE PERMANENT MAGNET	Rated Motor/Generator Power	188
Mfr Fuel Cell Description	--		
Fuel Cell On-Board H2 Storage Capacity (kg)	--	Usable H2 Fill Capacity (kg)	--
Mfr Hybrid Electric/ Electric Vehicle Comments	2020 MY Model 3 AWD Long Range Carline; AWD & PERF SHARE COMMON FRONT MOTOR - 147 kW; REAR (AWD) - 188 kW; (PERF) - 211 kW;		

Certification Summary Information Report

Test Group	LTSLV00.0L23	Evaporative/Refueling Family	--
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Emission Data Vehicle Information

Vehicle ID / Configuration	3D218-008371 / 0	Manufacturer Vehicle Configuration Number	0
Original Test Group Name	JTSLV00.0L23	Original Evaporative/Refueling Family	--
Original Test Vehicle Model Year	2018		
Vehicle Model			
Represented Test Vehicle Make	Tesla Model 3	Represented Test Vehicle Model	Long Range 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	Rated Horsepower	252
Engine Code	L23	Air Aspiration Method, if 'Other'	
Displacement (liters)	0.001	Air Aspiration Device Configuration	--
Air Aspiration Method	Naturally Aspirated	Drive Mode While Testing	All Wheel Drive
Number of Air Aspiration Devices	--	Aged Emission Components	4,000 (mi)
Charge Air Cooler Type	--	Equivalent Test Weight (pounds)	4500
Shift Indicator Light Usage	Not equipped	N/V Ratio	116.1
Curb Weight (lbs)	4099	# of Transmission Gears	1
GVWR (lbs)	--	Creeper Gear	No
Axle Ratio	9		
Transmission Type	Automatic		
Transmission Lockup	No		

Dynamometer Coefficients:

Coefficient Category	Target Coefficients			Set Coefficients			EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients
	A (lbf)	B (lbf/mph)	C (lbf/mph**2)	A (lbf)	B (lbf/mph)	C (lbf/mph**2)	
City/Highway/Evap	41.72	0.0515	0.01498	-11.35	0.1804	0.01082	10.9

Emission Control Device Comments No Emissions Control Device - Pure Electric

Certification Summary Information Report

Test Group	LTSLV00.0L23		Evaporative/Refueling Family		--																									
Manufacturer Test Vehicle Comments	This is 2018 Model 3 - Long Range AWD. Front Motor Power - 147 kW, Rear Motor Power - 188 kW;																													
Test #	JTSL10054632		Test Procedure		2 - CVS 75 and later (w/o can. load)																									
Exhaust Test # for this Evap Test	--		Test Fuel Type		62 - Electricity																									
Test Date	04/08/2018		Fuel		Electricity																									
Fuel Batch ID	--		Fuel Calibration Number		--																									
Vehicle Class	LDV/Passenger Car		DF Type		EPA Assigned																									
Verify Test Lab ID	Fremont Dyno																													
E10 Evaporative Test Measurement Method	--																													
Test Start Odometer Reading	6649		Odometer Units		M																									
4WD Test Dyno	Yes		Diesel Adjustment Factor Usage		--																									
State of Charge Delta	--																													
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)		Road Speed Fan Usage		Yes																									
Test Results																														
<table border="1"> <thead> <tr> <th>Test Result Name</th> <th>Unrounded Test Result</th> <th>Verify Calculated FE Equivalent Value (kilowatt-hour per 100 miles)</th> </tr> </thead> <tbody> <tr> <td>CO (Carbon Monoxide)</td> <td>0</td> <td>--</td> </tr> <tr> <td>DT-ASCR (Drive Trace Absolute Speed Change Rating)</td> <td>2.3347</td> <td>--</td> </tr> <tr> <td>DT-EER (Drive Trace Energy Economy Rating)</td> <td>1.4489</td> <td>--</td> </tr> <tr> <td>DT-IWRR (Drive Trace Inertia Work Ratio Rating)</td> <td>4.106</td> <td>--</td> </tr> <tr> <td>MFR FE (Manufacturer Fuel Economy)</td> <td>17.4004</td> <td>193.6737087</td> </tr> <tr> <td>NOX (Nitrogen Oxide)</td> <td>0</td> <td>--</td> </tr> <tr> <td>NMOG (Non-methane organic gases)</td> <td>0</td> <td>--</td> </tr> </tbody> </table>							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)	2.3347	--	DT-EER (Drive Trace Energy Economy Rating)	1.4489	--	DT-IWRR (Drive Trace Inertia Work Ratio Rating)	4.106	--	MFR FE (Manufacturer Fuel Economy)	17.4004	193.6737087	NOX (Nitrogen Oxide)	0	--	NMOG (Non-methane organic gases)	0	--
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)	2.3347	--																												
DT-EER (Drive Trace Energy Economy Rating)	1.4489	--																												
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MFR FE (Manufacturer Fuel Economy)	17.4004	193.6737087																												
NOX (Nitrogen Oxide)	0	--																												
NMOG (Non-methane organic gases)	0	--																												
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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 MY2018 Model 3 Long Range AWD / AWD Performance. Wh/mi @ 50 % SOC - Bag 1 - 201.6398; Bag 2 - 176.5316; Bag 3 - 197.1232; Bag 4 - 175.7479;																													
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

Test Group	LTSLV00.0L23	Evaporative/Refueling Family	--
Test #	JTSL10054631	Test Procedure	3 - HWFE
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	04/08/2018	Fuel	N/A
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	EPA Assigned
Verify Test Lab ID	Fremont Dyno		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	6649	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (kilowatt-hour per 100 miles)
DT-ASCR (Drive Trace Absolute Speed Change Rating)	5.8871	--
DT-EER (Drive Trace Energy Economy Rating)	0.9542	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	7.6037	--
MFR FE (Manufacturer Fuel Economy)	18.7406	179.8234848
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 (HWY 3) for MY2018 Model 3 Long Range AWD / AWD Performance. The HFET result from the full discharge MCT is used for the 2-part and 5-part calculations. wh/mi - 187.4165;

Certification Summary Information Report

Test Group	LTSLV00.0L23	Evaporative/Refueling Family	--
Test #	JTSL10054630	Test Procedure	90 - US06
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	04/08/2018	Fuel	N/A
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	EPA Assigned
Verify Test Lab ID	Fremont Dyno		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	6649	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (kilowatt-hour per 100 miles)
CO (Carbon Monoxide)	0	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-1.67	--
DT-EER (Drive Trace Energy Economy Rating)	-0.99	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-2.67	--
MFR FE (Manufacturer Fuel Economy)	27.5938	122.128884
NOX (Nitrogen Oxide)	0	--
NMOG (Non-methane organic gases)	0	--

Manufacturer Test Comments

Internal Test results (US 06) for MY2018 Model 3 Long Range AWD / AWD Performance. US 06 dc wh/mi - City -275.9632; Hwy -247.4057 @ 50% SOC. City FE 27.5938; Hwy FE - 24.7402;

Certification Summary Information Report

Test Group	LTSLV00.0L23	Evaporative/Refueling Family	--
Test #	JTSL10054629	Test Procedure	95 - SC03
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	04/08/2018	Fuel	N/A
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	EPA Assigned
Verify Test Lab ID	Fremont Dyno		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	6649	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (kilowatt-hour per 100 miles)
CO (Carbon Monoxide)	0	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	1.55	--
DT-EER (Drive Trace Energy Economy Rating)	2.98	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	2.85	--
MFR FE (Manufacturer Fuel Economy)	24.4918	137.5970733
NOX (Nitrogen Oxide)	0	--
NMOG (Non-methane organic gases)	0	--

Manufacturer Test Comments

Internal Test results (SC 03) for MY2018 Model 3 Long Range AWD / AWD Performance. dc wh/mi - 244.9051 at 50% SOC.

Certification Summary Information Report

Test Group	LTSLV00.0L23	Evaporative/Refueling Family	--
Test #	JTSL10054423	Test Procedure	81 - Charge Depleting UDDS
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	04/08/2018	Fuel	Electricity
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	LDV/Passenger Car	DF Type	EPA Assigned
Verify Test Lab ID	Fremont Dyno		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	6649	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	Yes
PHEV/EV TEST INFO			
Recharge Event Voltage	208	Recharge Event Energy (kiloWatt-hours)	89.58
Charge Depleting Range (Calculated miles)	455.32	Charge Depleting Range (Actual miles)	455.32
Equivalent All Electric Range (miles)	455.32		
Number of Charge Depleting Bags/Phases Conducted	1		
Charge Depleting Bag/Phase			
Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result	
1	Actual Distance Driven (miles)	455.32	
2	Average System Voltage	351	
3	Carbon Monoxide	0	
4	Carbon dioxide	0	
5	Carbon-Related Exhaust Emissions	0	
6	Drive Trace Absolute Speed Change Rating	2.34	
7	Drive Trace Energy Economy Rating	1.45	
8	Drive Trace Inertia Work Ratio Rating	4.11	
9	Integrated Amp-hours	225.56	
10	Manufacturer Fuel Economy	171.32	
11	Nitrogen Oxide	0	
12	Non-methane organic gases	0	
13	Non-methane organic gases plus Nitrogen Oxides	999.999	
14	Particulate Matter	0	
15	System End State of Charge Watt-hours	7921.8	
16	System Start State of Charge Watt-hours	0	

Certification Summary Information Report

Test Group		LTSLV00.0L23		Evaporative/Refueling Family				--				
Manufacturer Test Comments		Internal Test results for MY2018 Model 3 Long Range AWD / AWD Performance. Range determined by using SAE J1634 Multi-cycle test procedure. END-SOC 79218 wh (system gave error limited to 4 digits). MCT dc wh/mi is attached with EPA application.Added NMOG Test results.										
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

Test Group	LTSLV00.0L23	Evaporative/Refueling Family	--
Test #	JTSL10054424	Test Procedure	84 - Charge Depleting Highway
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	04/08/2018	Fuel	Electricity
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	LDV/Passenger Car	DF Type	EPA Assigned
Verify Test Lab ID	Fremont Dyno		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	6649	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	Yes
PHEV/EV TEST INFO			
Recharge Event Voltage	208	Recharge Event Energy (kiloWatt-hours)	89.58
Charge Depleting Range (Calculated miles)	422.7	Charge Depleting Range (Actual miles)	422.7
Equivalent All Electric Range (miles)	422.7		
Number of Charge Depleting Bags/Phases Conducted	1		
Charge Depleting Bag/Phase			
Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result	
1	Actual Distance Driven (miles)	422.7	
2	Average System Voltage	351	
3	Carbon Monoxide	0	
4	Carbon dioxide	0	
5	Carbon-Related Exhaust Emissions	0	
6	Drive Trace Absolute Speed Change Rating	5.89	
7	Drive Trace Energy Economy Rating	0.95	
8	Drive Trace Inertia Work Ratio Rating	7.6	
9	Integrated Amp-hours	225.56	
10	Manufacturer Fuel Economy	159.05	
11	Nitrogen Oxide	0	
12	Non-methane organic gases	0	
13	Non-methane organic gases plus Nitrogen Oxides	999.999	
14	Particulate Matter	0	
15	System End State of Charge Watt-hours	7921.8	
16	System Start State of Charge Watt-hours	0	

Certification Summary Information Report

Test Group		LTSLV00.0L23		Evaporative/Refueling Family				--				
Manufacturer Test Comments		Internal Test results for MY2018 Model 3 Long Range AWD / AWD Performance. Range determined by using SAE J1634 Multi-cycle test procedure. END-SOC - 79218 wh (System error limited to 4 digits). MCT dc wh/mi is attached with application.										
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

Test Group	LTSLV00.0L23	Evaporative/Refueling Family	--
Test #	JTSL10054633	Test Procedure	86 - Charge Depleting 20 Degree F FTP
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	04/08/2018	Fuel	N/A
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	EPA Assigned
Verify Test Lab ID	Fremont Dyno		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	6649	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	Yes
PHEV/EV TEST INFO			
Recharge Event Voltage	208	Recharge Event Energy (kiloWatt-hours)	82.02
Charge Depleting Range (Calculated miles)	256.64	Charge Depleting Range (Actual miles)	256.64
Equivalent All Electric Range (miles)	256.64		
Number of Charge Depleting Bags/Phases Conducted	1		
Charge Depleting Bag/Phase			
	Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result
	1	Actual Distance Driven (miles)	256.64
	2	Average System Voltage	354.93
	3	Carbon Monoxide	0
	4	Carbon dioxide	0
	5	Carbon-Related Exhaust Emissions	0
	6	Drive Trace Absolute Speed Change Rating	0.14
	7	Drive Trace Energy Economy Rating	-0.6
	8	Drive Trace Inertia Work Ratio Rating	0.54
	9	Integrated Amp-hours	204.36
	10	Manufacturer Fuel Economy	28.2646
	11	Nitrogen Oxide	0
	12	Non-methane organic gases	0
	13	Non-methane organic gases plus Nitrogen Oxides	999.999
	14	Particulate Matter	0
	15	System End State of Charge Watt-hours	7253.4
	16	System Start State of Charge Watt-hours	0

Certification Summary Information Report

Test Group	LTSLV00.0L23	Evaporative/Refueling Family	--
Manufacturer Test Comments	Internal Test results(Cold UDDS) for MY2018 Model 3 Long Range AWD / AWD Performance. END SOC is 72534 wh (System error limited to 4 digits) for full discharge. wh/mi - Bag 1 - 504.3455; Bag 2 - 406.6573; Bag 3 - 342.9979; Bag - 4- 316.0353;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.		

Certification Summary Information Report

Test Group	LTSLV00.0L23	Evaporative/Refueling Family	--
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Emission Data Vehicle Information

Vehicle ID / Configuration	3D220-215315 / 0	Manufacturer Vehicle Configuration Number	0
Original Test Group Name	LTSLV00.0L23	Original Evaporative/Refueling Family	--
Original Test Vehicle Model Year	2020		
Vehicle Model			
Represented Test Vehicle Make	Tesla	Represented Test Vehicle Model	Model 3 Long Range AWD Performance (20" Wheels)

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	Miles		
Odometer Correction Units	Miles	Rated Horsepower	487
Engine Code	L23	Air Aspiration Method, if 'Other'	
Displacement (liters)	0.001	Air Aspiration Device Configuration	--
Air Aspiration Method	Naturally Aspirated	Drive Mode While Testing	All Wheel Drive
Number of Air Aspiration Devices	--	Aged Emission Components	4,000 (mi)
Charge Air Cooler Type	--	Equivalent Test Weight (pounds)	4500
Shift Indicator Light Usage	Not equipped	N/V Ratio	116.1
Curb Weight (lbs)	4125		
GVWR (lbs)	5071	# of Transmission Gears	1
Axle Ratio	9	Creeper Gear	No
Transmission Type	Automatic		
Transmission Lockup	No		

Dynamometer Coefficients:

Coefficient Category	Target Coefficients			Set Coefficients			EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients
	A (lbf)	B (lbf/mph)	C (lbf/mph**2)	A (lbf)	B (lbf/mph)	C (lbf/mph**2)	
City/Highway/Evap	50.36	0.0545	0.0159	1.51	-0.122	0.0152	12.4

Certification Summary Information Report

Test Group	LTSLV00.0L23	Evaporative/Refueling Family	--
Emission Control Device Comments	No Emissions Control Device - Pure Electric		
Manufacturer Test Vehicle Comments	This is 2020 Model 3 - Long Range AWD Performance(20" Wheels); Front Motor Power - 147 kW; Rear Motor Power - 211 kW;		
Test #	LTSL10061726	Test Procedure	2 - CVS 75 and later (w/o can. load)
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	09/19/2019	Fuel	Electricity
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	LDV/Passenger Car	DF Type	EPA Assigned
Verify Test Lab ID	Fremont Dyno		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	5178	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (kilowatt-hour per 100 miles)
CO (Carbon Monoxide)	0	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.2411	--
DT-EER (Drive Trace Energy Economy Rating)	0.6202	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.8192	--
MFR FE (Manufacturer Fuel Economy)	19.1865	175.6443333
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 MY2020 Model 3 Long Range AWD Performance (20" Wheels). Wh/mi @ 50 % SOC - Bag 1 - 222.00; Bag 2- 190.99; Bag 3 - 215.76; Bag 4 - 187.21;

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

Test Group	LTSLV00.0L23	Evaporative/Refueling Family	--
Test #	LTSL10061725	Test Procedure	3 - HWFE
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	09/19/2019	Fuel	N/A
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	EPA Assigned
Verify Test Lab ID	Fremont Dyno		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	5178	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (kilowatt-hour per 100 miles)
DT-ASCR (Drive Trace Absolute Speed Change Rating)	0.2822	--
DT-EER (Drive Trace Energy Economy Rating)	0.0555	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	0.748	--
MFR FE (Manufacturer Fuel Economy)	20.57	163.8308216
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 (HWY 3) for MY2020 Model 3 Long Range AWD Performance (20" Wheels). The HFET result from the full discharge MCT is used for the 2-part and 5-part calculations. wh/mi - 205.70;

Certification Summary Information Report

Test Group	LTSLV00.0L23	Evaporative/Refueling Family	--
Test #	LTSL10061724	Test Procedure	90 - US06
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	09/19/2019	Fuel	N/A
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	EPA Assigned
Verify Test Lab ID	Fremont Dyno		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	5178	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (kilowatt-hour per 100 miles)
CO (Carbon Monoxide)	0	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-2.4525	--
DT-EER (Drive Trace Energy Economy Rating)	-1.5232	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-4.7148	--
MFR FE (Manufacturer Fuel Economy)	27.9155	120.721463
NOX (Nitrogen Oxide)	0	--
NMOG (Non-methane organic gases)	0	--

Manufacturer Test Comments

Internal Test results (US 06) for MY2020 Model 3 Long Range AWD Performance (20" Wheels). US 06 dc wh/mi - City -279.15; Hwy -266.69 @ 50% SOC. City FE 27.9155; Hwy FE - 26.6689;

Certification Summary Information Report

Test Group	LTSLV00.0L23	Evaporative/Refueling Family	--
Test #	LTSL10061723	Test Procedure	95 - SC03
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	09/19/2019	Fuel	N/A
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	EPA Assigned
Verify Test Lab ID	Fremont Dyno		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	5178	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (kilowatt-hour per 100 miles)
CO (Carbon Monoxide)	0	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	2.2707	--
DT-EER (Drive Trace Energy Economy Rating)	1.5128	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	3.1883	--
MFR FE (Manufacturer Fuel Economy)	27.2763	123.5504816
NOX (Nitrogen Oxide)	0	--
NMOG (Non-methane organic gases)	0	--

Manufacturer Test Comments

Internal Test results (SC 03) for MY2020 Model 3 Long Range AWD Performance (20" Wheels). dc wh/mi - 272.76 at 50% SOC.

Certification Summary Information Report

Test Group	LTSLV00.0L23	Evaporative/Refueling Family	--
Test #	LTSL10061721	Test Procedure	81 - Charge Depleting UDDS
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	09/19/2019	Fuel	Electricity
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	LDV/Passenger Car	DF Type	EPA Assigned
Verify Test Lab ID	Fremont Dyno		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	5178	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	Yes
PHEV/EV TEST INFO			
Recharge Event Voltage	208	Recharge Event Energy (kiloWatt-hours)	87.732
Charge Depleting Range (Calculated miles)	404.11	Charge Depleting Range (Actual miles)	404.11
Equivalent All Electric Range (miles)	404.11		
Number of Charge Depleting Bags/Phases Conducted	4		
Charge Depleting Bag/Phase			
Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result	
1	Actual Distance Driven (miles)	404.11	
2	Average System Voltage	350	
3	Carbon Monoxide	0	
4	Carbon dioxide	0	
5	Carbon-Related Exhaust Emissions	0	
6	Drive Trace Absolute Speed Change Rating	1.2834	
7	Drive Trace Energy Economy Rating	0.9932	
8	Drive Trace Inertia Work Ratio Rating	2.1171	
9	Integrated Amp-hours	221.3277	
10	Manufacturer Fuel Economy	155.25	
11	Nitrogen Oxide	0	
12	Non-methane organic gases	0	
13	Non-methane organic gases plus Nitrogen Oxides	999.999	
14	Particulate Matter	0	
15	System End State of Charge Watt-hours	77.532	
16	System Start State of Charge Watt-hours	0	

Certification Summary Information Report

Test Group		LTSLV00.0L23		Evaporative/Refueling Family				--				
Manufacturer Test Comments		Internal Test results for MY2020 Model 3 Long Range AWD Performance (20" Wheels). Range determined by using SAE J1634 Multi-cycle test procedure. END-SOC 77532 wh (system gave error limited to 4 digits). MCT dc wh/mi is attached with EPA application.Added NMOG Test results.										
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

Test Group	LTSLV00.0L23	Evaporative/Refueling Family	--
Test #	LTSL10061722	Test Procedure	84 - Charge Depleting Highway
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	09/19/2019	Fuel	Electricity
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	LDV/Passenger Car	DF Type	EPA Assigned
Verify Test Lab ID	Fremont Dyno		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	5178	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	Yes
PHEV/EV TEST INFO			
Recharge Event Voltage	208	Recharge Event Energy (kiloWatt-hours)	87.732
Charge Depleting Range (Calculated miles)	378.96	Charge Depleting Range (Actual miles)	378.96
Equivalent All Electric Range (miles)	378.96		
Number of Charge Depleting Bags/Phases Conducted	2		
Charge Depleting Bag/Phase			
Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result	
1	Actual Distance Driven (miles)	378.96	
2	Average System Voltage	350	
3	Carbon Monoxide	0	
4	Carbon dioxide	0	
5	Carbon-Related Exhaust Emissions	0	
6	Drive Trace Absolute Speed Change Rating	4.2177	
7	Drive Trace Energy Economy Rating	0.3465	
8	Drive Trace Inertia Work Ratio Rating	5.4606	
9	Integrated Amp-hours	221.3277	
10	Manufacturer Fuel Economy	145.59	
11	Nitrogen Oxide	0	
12	Non-methane organic gases	0	
13	Non-methane organic gases plus Nitrogen Oxides	999.999	
14	Particulate Matter	0	
15	System End State of Charge Watt-hours	77.532	
16	System Start State of Charge Watt-hours	0	

Certification Summary Information Report

Test Group		LTSLV00.0L23		Evaporative/Refueling Family				--				
Manufacturer Test Comments		Internal Test results for MY2020 Model 3 Long Range AWD Performance (20" Wheels). Range determined by using SAE J1634 Multi-cycle test procedure. END-SOC - 77532 wh (System error limited to 4 digits). MCT dc wh/mi is attached with application.										
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

Test Group	LTSLV00.0L23	Evaporative/Refueling Family	--
Test #	LTSL10061727	Test Procedure	86 - Charge Depleting 20 Degree F FTP
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	09/19/2019	Fuel	N/A
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	EPA Assigned
Verify Test Lab ID	Fremont Dyno		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	5178	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	Yes
PHEV/EV TEST INFO			
Recharge Event Voltage	208	Recharge Event Energy (kiloWatt-hours)	81.196
Charge Depleting Range (Calculated miles)	245.62	Charge Depleting Range (Actual miles)	245.62
Equivalent All Electric Range (miles)	245.62		
Number of Charge Depleting Bags/Phases Conducted	33		
Charge Depleting Bag/Phase			
	Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result
	1	Actual Distance Driven (miles)	245.62
	2	Average System Voltage	349
	3	Carbon Monoxide	0
	4	Carbon dioxide	0
	5	Carbon-Related Exhaust Emissions	0
	6	Drive Trace Absolute Speed Change Rating	1.1386
	7	Drive Trace Energy Economy Rating	0.7332
	8	Drive Trace Inertia Work Ratio Rating	1.9161
	9	Integrated Amp-hours	205.7866
	10	Manufacturer Fuel Economy	29.21
	11	Nitrogen Oxide	0
	12	Non-methane organic gases	0
	13	Non-methane organic gases plus Nitrogen Oxides	999.999
	14	Particulate Matter	0
	15	System End State of Charge Watt-hours	71.756
	16	System Start State of Charge Watt-hours	0

Certification Summary Information Report

Test Group	LTSLV00.0L23	Evaporative/Refueling Family	--
Manufacturer Test Comments	Internal Test results(Cold UDDS) for MY2020 Model 3 Long Range AWD Performance (20" Wheels). END SOC is 71756 wh (System error limited to 4 digits) for full discharge. wh/mi - Bag 1 - 482.63; Bag 2 - 396.18; Bag 3 - 381.77; Bag - 4- 367.52; 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.		

Certification Summary Information Report

Test Group	LTSLV00.0L23	Evaporative/Refueling Family	--
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Emission Data Vehicle Information

Vehicle ID / Configuration	3D220-215315 / 1	Manufacturer Vehicle Configuration Number	0
Original Test Group Name	LTSLV00.0L23	Original Evaporative/Refueling Family	--
Original Test Vehicle Model Year	2020		
Vehicle Model			
Represented Test Vehicle Make	Tesla	Represented Test Vehicle Model	Model 3 Long Range AWD Performance (19" Wheels)

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 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	1	Odometer Correction Factor	1
Odometer Correction Sign	- = System Miles is equal to (Test odometer reading - Initial system miles) * Correction factor		
Odometer Correction Units	Miles		
Engine Code	L23	Rated Horsepower	487
Displacement (liters)	0.001		
Air Aspiration Method	Naturally Aspirated	Air Aspiration Method, if 'Other'	
Number of Air Aspiration Devices	--	Air Aspiration Device Configuration	--
Charge Air Cooler Type	--	Drive Mode While Testing	All Wheel Drive
Shift Indicator Light Usage	Not equipped	Aged Emission Components	4,000 (mi)
Curb Weight (lbs)	4125	Equivalent Test Weight (pounds)	4500
GVWR (lbs)	5071	N/V Ratio	116.1
Axle Ratio	9		
Transmission Type	Automatic	# of Transmission Gears	1
Transmission Lockup	No	Creeper Gear	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	38.58	0.3227	0.01241	-7.77	0.296	0.0104	11.4

Certification Summary Information Report

Test Group	LTSLV00.0L23	Evaporative/Refueling Family	--
Emission Control Device Comments	No Emissions Control Device - Pure Electric		
Manufacturer Test Vehicle Comments	This is 2020 Model 3 - Long Range AWD Performance(19" Wheels); Front Motor Power - 147 kW; Rear Motor Power - 211 kW;		
Test #	LTSL10061732	Test Procedure	2 - CVS 75 and later (w/o can. load)
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	09/11/2019	Fuel	Electricity
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	LDV/Passenger Car	DF Type	EPA Assigned
Verify Test Lab ID	Fremont Dyno		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4368	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (kilowatt-hour per 100 miles)
CO (Carbon Monoxide)	0	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	1.6063	--
DT-EER (Drive Trace Energy Economy Rating)	1.1204	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	2.8253	--
MFR FE (Manufacturer Fuel Economy)	18.3117	184.0353435
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 MY2020 Model 3 Long Range AWD Performance (19" Wheels). Wh/mi @ 50 % SOC - Bag 1 - 205.45; Bag 2- 171.24; Bag 3 - 198.86; Bag 4 - 169.89;

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

Test Group	LTSLV00.0L23	Evaporative/Refueling Family	--
Test #	LTSL10061733	Test Procedure	2 - CVS 75 and later (w/o can. load)
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	09/11/2019	Fuel	Electricity
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	LDV/Passenger Car	DF Type	EPA Assigned
Verify Test Lab ID	Fremont Dyno		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4368	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (kilowatt-hour per 100 miles)
CO (Carbon Monoxide)	0	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	1.6063	--
DT-EER (Drive Trace Energy Economy Rating)	1.1204	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	2.8253	--
MFR FE (Manufacturer Fuel Economy)	18.3117	184.0353435
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 MY2020 Model 3 Long Range AWD Performance (19" Wheels). Wh/mi @ 50 % SOC - Bag 1 - 205.45; Bag 2- 171.24; Bag 3 - 198.86; Bag 4 - 169.89;

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

Test Group	LTSLV00.0L23	Evaporative/Refueling Family	--
Test #	LTSL10061731	Test Procedure	3 - HWFE
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	09/11/2019	Fuel	N/A
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	EPA Assigned
Verify Test Lab ID	Fremont Dyno		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4368	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (kilowatt-hour per 100 miles)
DT-ASCR (Drive Trace Absolute Speed Change Rating)	4.0768	--
DT-EER (Drive Trace Energy Economy Rating)	0.911	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	5.1147	--
MFR FE (Manufacturer Fuel Economy)	18.97	177.6489193
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 (HWY 3) for MY2020 Model 3 Long Range AWD Performance (19" Wheels). The HFET result from the full discharge MCT is used for the 2-part and 5-part calculations. wh/mi - 189.70;

Certification Summary Information Report

Test Group	LTSLV00.0L23	Evaporative/Refueling Family	--
Test #	LTSL10061737	Test Procedure	90 - US06
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	09/11/2019	Fuel	N/A
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	EPA Assigned
Verify Test Lab ID	Fremont Dyno		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4368	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (kilowatt-hour per 100 miles)
CO (Carbon Monoxide)	0	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	1.0096	--
DT-EER (Drive Trace Energy Economy Rating)	0.6796	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	1.9441	--
MFR FE (Manufacturer Fuel Economy)	27.6116	122.0501528
NOX (Nitrogen Oxide)	0	--
NMOG (Non-methane organic gases)	0	--

Manufacturer Test Comments

Internal Test results (US 06) for MY2020 Model 3 Long Range AWD Performance (19" Wheels). US 06 dc wh/mi - City -276.12; Hwy -249.52 @ 50% SOC. City FE 27.6116; Hwy FE - 24.9521;

Certification Summary Information Report

Test Group	LTSLV00.0L23	Evaporative/Refueling Family	--
Test #	LTSL10061736	Test Procedure	95 - SC03
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	09/11/2019	Fuel	N/A
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	EPA Assigned
Verify Test Lab ID	Fremont Dyno		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4368	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	Yes

Test Results

Test Result Name	Unrounded Test Result	Verify Calculated FE Equivalent Value (kilowatt-hour per 100 miles)
CO (Carbon Monoxide)	0	--
DT-ASCR (Drive Trace Absolute Speed Change Rating)	-0.8792	--
DT-EER (Drive Trace Energy Economy Rating)	0.1449	--
DT-IWRR (Drive Trace Inertia Work Ratio Rating)	-0.9839	--
MFR FE (Manufacturer Fuel Economy)	26.3616	127.8374605
NOX (Nitrogen Oxide)	0	--
NMOG (Non-methane organic gases)	0	--

Manufacturer Test Comments

Internal Test results (SC 03) for MY2020 Model 3 Long Range AWD Performance (19" Wheels). dc wh/mi - 263.62 at 50% SOC.

Certification Summary Information Report

Test Group	LTSLV00.0L23	Evaporative/Refueling Family	--
Test #	LTSL10061730	Test Procedure	84 - Charge Depleting Highway
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	09/11/2019	Fuel	Electricity
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	LDV/Passenger Car	DF Type	EPA Assigned
Verify Test Lab ID	Fremont Dyno		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4368	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	Yes
PHEV/EV TEST INFO			
Recharge Event Voltage	208	Recharge Event Energy (kiloWatt-hours)	88.536
Charge Depleting Range (Calculated miles)	403.97	Charge Depleting Range (Actual miles)	403.97
Equivalent All Electric Range (miles)	403.97		
Number of Charge Depleting Bags/Phases Conducted	2		
Charge Depleting Bag/Phase			
Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result	
1	Actual Distance Driven (miles)	403.97	
2	Average System Voltage	350	
3	Carbon Monoxide	0	
4	Carbon dioxide	0	
5	Carbon-Related Exhaust Emissions	0	
6	Drive Trace Absolute Speed Change Rating	4.0024	
7	Drive Trace Energy Economy Rating	0.5279	
8	Drive Trace Inertia Work Ratio Rating	5.2371	
9	Integrated Amp-hours	223.8138	
10	Manufacturer Fuel Economy	153.7902	
11	Nitrogen Oxide	0	
12	Non-methane organic gases	0	
13	Non-methane organic gases plus Nitrogen Oxides	999.999	
14	Particulate Matter	0	
15	System End State of Charge Watt-hours	78.426	
16	System Start State of Charge Watt-hours	0	

Certification Summary Information Report

Test Group		LTSLV00.0L23		Evaporative/Refueling Family				--				
Manufacturer Test Comments		Internal Test results for MY2020 Model 3 Long Range AWD Performance (19" Wheels). Range determined by using SAE J1634 Multi-cycle test procedure. END-SOC - 78426 wh (System error limited to 4 digits). MCT dc wh/mi is attached with application.										
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

Test Group	LTSLV00.0L23	Evaporative/Refueling Family	--
Test #	LTSL10061734	Test Procedure	86 - Charge Depleting 20 Degree F FTP
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	09/11/2019	Fuel	N/A
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	N/A	DF Type	EPA Assigned
Verify Test Lab ID	Fremont Dyno		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4368	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	Yes
PHEV/EV TEST INFO			
Recharge Event Voltage	208	Recharge Event Energy (kiloWatt-hours)	82.716
Charge Depleting Range (Calculated miles)	245.67	Charge Depleting Range (Actual miles)	245.67
Equivalent All Electric Range (miles)	245.67		
Number of Charge Depleting Bags/Phases Conducted	33		
Charge Depleting Bag/Phase			
Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result	
1	Actual Distance Driven (miles)	245.67	
2	Average System Voltage	349	
3	Carbon Monoxide	0	
4	Carbon dioxide	0	
5	Carbon-Related Exhaust Emissions	0	
6	Drive Trace Absolute Speed Change Rating	1.1817	
7	Drive Trace Energy Economy Rating	1.0626	
8	Drive Trace Inertia Work Ratio Rating	2.1709	
9	Integrated Amp-hours	209.9608	
10	Manufacturer Fuel Economy	29.821	
11	Nitrogen Oxide	0	
12	Non-methane organic gases	0	
13	Non-methane organic gases plus Nitrogen Oxides	999.999	
14	Particulate Matter	0	
15	System End State of Charge Watt-hours	73.27	
16	System Start State of Charge Watt-hours	0	

Certification Summary Information Report

Test Group	LTSLV00.0L23	Evaporative/Refueling Family	--
Manufacturer Test Comments	Internal Test results(Cold UDDS) for MY2020 Model 3 Long Range AWD Performance (19" Wheels). END SOC is 73270 wh (System error limited to 4 digits) for full discharge. wh/mi - Bag 1 - 498.16; Bag 2 - 403.97; Bag 3 - 387.34; Bag - 4- 356.47; 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.		

Certification Summary Information Report

Test Group	LTSLV00.0L23	Evaporative/Refueling Family	--
Test #	LTSL10061735	Test Procedure	81 - Charge Depleting UDDS
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	09/11/2019	Fuel	Electricity
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	LDV/Passenger Car	DF Type	EPA Assigned
Verify Test Lab ID	Fremont Dyno		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	4368	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	Yes
PHEV/EV TEST INFO			
Recharge Event Voltage	208	Recharge Event Energy (kiloWatt-hours)	88.536
Charge Depleting Range (Calculated miles)	428.3	Charge Depleting Range (Actual miles)	428.3
Equivalent All Electric Range (miles)	428.3		
Number of Charge Depleting Bags/Phases Conducted	4		
Charge Depleting Bag/Phase			
Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result	
1	Actual Distance Driven (miles)	428.3	
2	Average System Voltage	350	
3	Carbon Monoxide	0	
4	Carbon dioxide	0	
5	Carbon-Related Exhaust Emissions	0	
6	Drive Trace Absolute Speed Change Rating	1.9254	
7	Drive Trace Energy Economy Rating	1.6015	
8	Drive Trace Inertia Work Ratio Rating	3.1176	
9	Integrated Amp-hours	223.8138	
10	Manufacturer Fuel Economy	163.05	
11	Nitrogen Oxide	0	
12	Non-methane organic gases	0	
13	Non-methane organic gases plus Nitrogen Oxides	999.999	
14	Particulate Matter	0	
15	System End State of Charge Watt-hours	78.426	
16	System Start State of Charge Watt-hours	0	

Certification Summary Information Report

Test Group		LTSLV00.0L23		Evaporative/Refueling Family				--				
Manufacturer Test Comments		Internal Test results for MY2020 Model 3 Long Range AWD Performance (19" Wheels). Range determined by using SAE J1634 Multi-cycle test procedure. END-SOC 78426 wh (system gave error limited to 4 digits). MCT dc wh/mi is attached with EPA application.Added NMOG Test results.										
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

Test Group	LTSLV00.0L23	Evaporative/Refueling Family	--
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Emission Data Vehicle Information

Vehicle ID / Configuration	3D220-230004 / 0	Manufacturer Vehicle Configuration Number	0
Original Test Group Name	LTSLV00.0L23	Original Evaporative/Refueling Family	--
Original Test Vehicle Model Year	2020		
Vehicle Model			
Represented Test Vehicle Make	Tesla	Represented Test Vehicle Model	Model 3 Long Range 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 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	1	Odometer Correction Factor	1
Odometer Correction Sign	- = System Miles is equal to (Test odometer reading - Initial system miles) * Correction factor		
Odometer Correction Units	Miles		
Engine Code	L23	Rated Horsepower	252
Displacement (liters)	0.001		
Air Aspiration Method	Naturally Aspirated	Air Aspiration Method, if 'Other'	
Number of Air Aspiration Devices	--	Air Aspiration Device Configuration	--
Charge Air Cooler Type	--	Drive Mode While Testing	All Wheel Drive
Shift Indicator Light Usage	Not equipped	Aged Emission Components	4,000 (mi)
Curb Weight (lbs)	4033	Equivalent Test Weight (pounds)	4250
GVWR (lbs)	5071	N/V Ratio	116.1
Axle Ratio	9.04		
Transmission Type	Automatic	# of Transmission Gears	1
Transmission Lockup	No	Creeper Gear	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	38.71	0.0305	0.015	0.53	-0.0303	0.0129	10.4

Emission Control Device Comments No Emissions Control Device - Pure Electric

Certification Summary Information Report

Test Group	LTSLV00.0L23	Evaporative/Refueling Family	--
Manufacturer Test Vehicle Comments	This is MY2020 Model 3 - Long Range AWD; Front Motor Power - 147 kW; Rear Motor Power - 188 kW;		

Certification Summary Information Report

Test Group	LTSLV00.0L23	Evaporative/Refueling Family	--
Test #	LTSL10062054	Test Procedure	81 - Charge Depleting UDDS
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	10/21/2019	Fuel	Electricity
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	LDV/Passenger Car	DF Type	EPA Assigned
Verify Test Lab ID	Fremont Dyno		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	2730	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	Yes
PHEV/EV TEST INFO			
Recharge Event Voltage	208	Recharge Event Energy (kiloWatt-hours)	89.907
Charge Depleting Range (Calculated miles)	470.88	Charge Depleting Range (Actual miles)	470.88
Equivalent All Electric Range (miles)	470.88		
Number of Charge Depleting Bags/Phases Conducted	4		
Charge Depleting Bag/Phase			
Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result	
1	Actual Distance Driven (miles)	470.88	
2	Average System Voltage	350	
3	Carbon Monoxide	0	
4	Carbon dioxide	0	
5	Carbon-Related Exhaust Emissions	0	
6	Drive Trace Absolute Speed Change Rating	0.5504	
7	Drive Trace Energy Economy Rating	2.3939	
8	Drive Trace Inertia Work Ratio Rating	1.052	
9	Integrated Amp-hours	227.9	
10	Manufacturer Fuel Economy	176.53	
11	Nitrogen Oxide	0	
12	Non-methane organic gases	0	
13	Non-methane organic gases plus Nitrogen Oxides	999.999	
14	Particulate Matter	0	
15	System End State of Charge Watt-hours	79.765	
16	System Start State of Charge Watt-hours	0	

Certification Summary Information Report

Test Group		LTSLV00.0L23		Evaporative/Refueling Family				--				
Manufacturer Test Comments		Internal Test results for MY2020 Model 3 Long Range AWD. Range determined by using SAE J1634 Multi-cycle test procedure. END-SOC 79765 wh (system gave error limited to 4 digits). MCT dc wh/mi is attached with EPA application.Added NMOG Test results.										
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

Test Group	LTSLV00.0L23	Evaporative/Refueling Family	--
Test #	LTSL10062055	Test Procedure	84 - Charge Depleting Highway
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	10/21/2019	Fuel	Electricity
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	LDV/Passenger Car	DF Type	EPA Assigned
Verify Test Lab ID	Fremont Dyno		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	2730	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	Yes
PHEV/EV TEST INFO			
Recharge Event Voltage	208	Recharge Event Energy (kiloWatt-hours)	89.907
Charge Depleting Range (Calculated miles)	441.68	Charge Depleting Range (Actual miles)	441.68
Equivalent All Electric Range (miles)	441.68		
Number of Charge Depleting Bags/Phases Conducted	2		
Charge Depleting Bag/Phase			
Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result	
1	Actual Distance Driven (miles)	441.68	
2	Average System Voltage	350	
3	Carbon Monoxide	0	
4	Carbon dioxide	0	
5	Carbon-Related Exhaust Emissions	0	
6	Drive Trace Absolute Speed Change Rating	2.3939	
7	Drive Trace Energy Economy Rating	0.39	
8	Drive Trace Inertia Work Ratio Rating	2.9955	
9	Integrated Amp-hours	227.91	
10	Manufacturer Fuel Economy	165.58	
11	Nitrogen Oxide	0	
12	Non-methane organic gases	0	
13	Non-methane organic gases plus Nitrogen Oxides	999.999	
14	Particulate Matter	0	
15	System End State of Charge Watt-hours	79.765	
16	System Start State of Charge Watt-hours	0	

Certification Summary Information Report

Test Group		LTSLV00.0L23		Evaporative/Refueling Family				--				
Manufacturer Test Comments		Internal Test results for MY2020 Model 3 Long Range AWD. Range determined by using SAE J1634 Multi-cycle test procedure. END-SOC - 79765 wh (System error limited to 4 digits). MCT dc wh/mi is attached with application.										
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

Test Group	LTSLV00.0L23		Evaporative/Refueling Family	--						
Emission Data Vehicle Information										
Vehicle ID / Configuration	3D220-477646 / 0		Manufacturer Vehicle Configuration Number	0						
Original Test Group Name	LTSLV00.0L23		Original Evaporative/Refueling Family	--						
Original Test Vehicle Model Year	2020									
Vehicle Model										
Represented Test Vehicle Make	Tesla		Represented Test Vehicle Model	Model 3 Long Range AWD Performance (20" Wheels)						
Leak Family Details										
Leak Family Identifier	--		Leak Family Name	--						
Drive Sources and Fuel System Details										
	<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								
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	1		Odometer Correction Factor	1						
Odometer Correction Sign	- = System Miles is equal to (Test odometer reading - Initial system miles) * Correction factor									
Odometer Correction Units	Miles									
Engine Code	L23		Rated Horsepower	287						
Displacement (liters)	0.001									
Air Aspiration Method	Naturally Aspirated		Air Aspiration Method, if 'Other'							
Number of Air Aspiration Devices	--		Air Aspiration Device Configuration	--						
Charge Air Cooler Type	--		Drive Mode While Testing	All Wheel Drive						
Shift Indicator Light Usage	Not equipped		Aged Emission Components	4,000 (mi)						
Curb Weight (lbs)	4036		Equivalent Test Weight (pounds)	4250						
GVWR (lbs)	5071		N/V Ratio	116.1						
Axle Ratio	9.04									
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)	A (lbf)	B (lbf/mph)	C (lbf/mph**2)	EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients			
City/Highway/Evap	47.82	0.0429	0.016	-0.82	-0.0788	0.0148	12			

Certification Summary Information Report

Test Group	LTSLV00.0L23	Evaporative/Refueling Family	--
Emission Control Device Comments	No Emissions Control Device - Pure Electric		
Manufacturer Test Vehicle Comments	This is 2020 Model 3 - Long Range AWD Performance(20" Wheels); Front Motor Power - 147 kW; Rear Motor Power - 211 kW;		

Certification Summary Information Report

Test Group	LTSLV00.0L23	Evaporative/Refueling Family	--
Test #	LTSL10062102	Test Procedure	81 - Charge Depleting UDDS
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	10/25/2019	Fuel	Electricity
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	LDV/Passenger Car	DF Type	EPA Assigned
Verify Test Lab ID	Fremont Dyno		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	1125	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	Yes
PHEV/EV TEST INFO			
Recharge Event Voltage	208	Recharge Event Energy (kiloWatt-hours)	89.18
Charge Depleting Range (Calculated miles)	430.5	Charge Depleting Range (Actual miles)	430.5
Equivalent All Electric Range (miles)	430.5		
Number of Charge Depleting Bags/Phases Conducted	4		
Charge Depleting Bag/Phase			
Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result	
1	Actual Distance Driven (miles)	430.5	
2	Average System Voltage	350	
3	Carbon Monoxide	0	
4	Carbon dioxide	0	
5	Carbon-Related Exhaust Emissions	0	
6	Drive Trace Absolute Speed Change Rating	0.1255	
7	Drive Trace Energy Economy Rating	0.3963	
8	Drive Trace Inertia Work Ratio Rating	0.3949	
9	Integrated Amp-hours	225.4	
10	Manufacturer Fuel Economy	162.71	
11	Nitrogen Oxide	0	
12	Non-methane organic gases	0	
13	Non-methane organic gases plus Nitrogen Oxides	999.999	
14	Particulate Matter	0	
15	System End State of Charge Watt-hours	78.869	
16	System Start State of Charge Watt-hours	0	

Certification Summary Information Report

Test Group		LTSLV00.0L23		Evaporative/Refueling Family				--				
Manufacturer Test Comments		Internal Test results for MY2020 Model 3 Long Range AWD Performance (20" Wheels). Range determined by using SAE J1634 Multi-cycle test procedure. END-SOC 78869 wh (system gave error limited to 4 digits). MCT dc wh/mi is attached with EPA application.Added NMOG Test results.										
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

Test Group	LTSLV00.0L23	Evaporative/Refueling Family	--
Test #	LTSL10062103	Test Procedure	84 - Charge Depleting Highway
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	10/25/2019	Fuel	Electricity
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	LDV/Passenger Car	DF Type	EPA Assigned
Verify Test Lab ID	Fremont Dyno		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	1125	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	Yes
PHEV/EV TEST INFO			
Recharge Event Voltage	208	Recharge Event Energy (kiloWatt-hours)	89.18
Charge Depleting Range (Calculated miles)	390.81	Charge Depleting Range (Actual miles)	390.81
Equivalent All Electric Range (miles)	390.81		
Number of Charge Depleting Bags/Phases Conducted	2		
Charge Depleting Bag/Phase			
Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result	
1	Actual Distance Driven (miles)	390.81	
2	Average System Voltage	350	
3	Carbon Monoxide	0	
4	Carbon dioxide	0	
5	Carbon-Related Exhaust Emissions	0	
6	Drive Trace Absolute Speed Change Rating	2.6984	
7	Drive Trace Energy Economy Rating	0.2831	
8	Drive Trace Inertia Work Ratio Rating	3.2781	
9	Integrated Amp-hours	225.4	
10	Manufacturer Fuel Economy	147.7	
11	Nitrogen Oxide	0	
12	Non-methane organic gases	0	
13	Non-methane organic gases plus Nitrogen Oxides	999.999	
14	Particulate Matter	0	
15	System End State of Charge Watt-hours	78.869	
16	System Start State of Charge Watt-hours	0	

Certification Summary Information Report

Test Group		LTSLV00.0L23		Evaporative/Refueling Family				--				
Manufacturer Test Comments		Internal Test results for MY2020 Model 3 Long Range AWD Performance (20" Wheels). Range determined by using SAE J1634 Multi-cycle test procedure. END-SOC - 78869 wh (System error limited to 4 digits). MCT dc wh/mi is attached with application.										
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

Test Group	LTSLV00.0L23	Evaporative/Refueling Family	--
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Emission Data Vehicle Information

Vehicle ID / Configuration	3D220-521025 / 0	Manufacturer Vehicle Configuration Number	0
Original Test Group Name	LTSLV00.0L23	Original Evaporative/Refueling Family	--
Original Test Vehicle Model Year	2020		
Vehicle Model			
Represented Test Vehicle Make	Tesla	Represented Test Vehicle Model	Model 3 Long Range AWD Performance (18" Wheels)

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	Rated Horsepower	287
Engine Code	L23	Air Aspiration Method, if 'Other'	
Displacement (liters)	0.001	Air Aspiration Device Configuration	--
Air Aspiration Method	Naturally Aspirated	Drive Mode While Testing	All Wheel Drive
Number of Air Aspiration Devices	--	Aged Emission Components	4,000 (mi)
Charge Air Cooler Type	--	Equivalent Test Weight (pounds)	4250
Shift Indicator Light Usage	Not equipped	N/V Ratio	116.1
Curb Weight (lbs)	4033		
GVWR (lbs)	5071	# of Transmission Gears	1
Axle Ratio	9.04	Creep Gear	No
Transmission Type	Automatic		
Transmission Lockup	No		

Dynamometer Coefficients:

Coefficient Category	Target Coefficients			Set Coefficients			EPA Calculated Total Road Load Horse Power for City/Highway/Evap Coefficients
	A (lbf)	B (lbf/mph)	C (lbf/mph**2)	A (lbf)	B (lbf/mph)	C (lbf/mph**2)	
City/Highway/Evap	38.72	0.0305	0.015	3.2	-0.1941	0.0144	10.4

Certification Summary Information Report

Test Group	LTSLV00.0L23	Evaporative/Refueling Family	--
Emission Control Device Comments	No Emissions Control Device - Pure Electric		
Manufacturer Test Vehicle Comments	This is 2020 Model 3 - Long Range AWD Performance(18" Wheels); Front Motor Power - 147 kW; Rear Motor Power - 211 kW;		

Certification Summary Information Report

Test Group	LTSLV00.0L23	Evaporative/Refueling Family	--
Test #	LTSL10062104	Test Procedure	81 - Charge Depleting UDDS
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	10/25/2019	Fuel	Electricity
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	LDV/Passenger Car	DF Type	EPA Assigned
Verify Test Lab ID	Fremont Dyno		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	1039	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	Yes
PHEV/EV TEST INFO			
Recharge Event Voltage	208	Recharge Event Energy (kiloWatt-hours)	89.921
Charge Depleting Range (Calculated miles)	487.37	Charge Depleting Range (Actual miles)	487.37
Equivalent All Electric Range (miles)	487.37		
Number of Charge Depleting Bags/Phases Conducted	4		
Charge Depleting Bag/Phase			
Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result	
1	Actual Distance Driven (miles)	487.37	
2	Average System Voltage	350	
3	Carbon Monoxide	0	
4	Carbon dioxide	0	
5	Carbon-Related Exhaust Emissions	0	
6	Drive Trace Absolute Speed Change Rating	0.1787	
7	Drive Trace Energy Economy Rating	0.5407	
8	Drive Trace Inertia Work Ratio Rating	0.361	
9	Integrated Amp-hours	227.2	
10	Manufacturer Fuel Economy	182.68	
11	Nitrogen Oxide	0	
12	Non-methane organic gases	0	
13	Non-methane organic gases plus Nitrogen Oxides	999.999	
14	Particulate Matter	0	
15	System End State of Charge Watt-hours	79.519	
16	System Start State of Charge Watt-hours	0	

Certification Summary Information Report

Test Group		LTSLV00.0L23		Evaporative/Refueling Family				--				
Manufacturer Test Comments		Internal Test results for MY2020 Model 3 Long Range AWD Performance (18" Wheels). Range determined by using SAE J1634 Multi-cycle test procedure. END-SOC 79519 wh (system gave error limited to 4 digits). MCT dc wh/mi is attached with EPA application.Added NMOG Test results.										
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

Test Group	LTSLV00.0L23	Evaporative/Refueling Family	--
Test #	LTSL10062105	Test Procedure	84 - Charge Depleting Highway
Exhaust Test # for this Evap Test	--	Test Fuel Type	62 - Electricity
Test Date	10/25/2019	Fuel	Electricity
Fuel Batch ID	--	Fuel Calibration Number	--
Vehicle Class	LDV/Passenger Car	DF Type	EPA Assigned
Verify Test Lab ID	Fremont Dyno		
E10 Evaporative Test Measurement Method	--		
Test Start Odometer Reading	1039	Odometer Units	M
4WD Test Dyno	Yes	Diesel Adjustment Factor Usage	--
State of Charge Delta	--		
Drive Cycle Speed Tolerance Criteria	Used Part 86 (+/- 2 mph, +/- 1 sec)	Road Speed Fan Usage	Yes

PHEV/EV TEST INFO

Recharge Event Voltage	208	Recharge Event Energy (kiloWatt-hours)	89.921
Charge Depleting Range (Calculated miles)	454.2	Charge Depleting Range (Actual miles)	454.2
Equivalent All Electric Range (miles)	454.2		
Number of Charge Depleting Bags/Phases Conducted	2		

Charge Depleting Bag/Phase

Charge Depleting Bag/Phase #	Test Result/Emission Name	Unrounded Test Result
1	Actual Distance Driven (miles)	454.2
2	Average System Voltage	350
3	Carbon Monoxide	0
4	Carbon dioxide	0
5	Carbon-Related Exhaust Emissions	0
6	Drive Trace Absolute Speed Change Rating	0.1715
7	Drive Trace Energy Economy Rating	-0.0702
8	Drive Trace Inertia Work Ratio Rating	0.3471
9	Integrated Amp-hours	227.2
10	Manufacturer Fuel Economy	170.25
11	Nitrogen Oxide	0
12	Non-methane organic gases	0
13	Non-methane organic gases plus Nitrogen Oxides	999.999
14	Particulate Matter	0
15	System End State of Charge Watt-hours	79.519
16	System Start State of Charge Watt-hours	0

Certification Summary Information Report

Test Group		LTSLV00.0L23		Evaporative/Refueling Family				--				
Manufacturer Test Comments		Internal Test results for MY2020 Model 3 Long Range AWD Performance (18" Wheels). Range determined by using SAE J1634 Multi-cycle test procedure. END-SOC - 79519 wh (System error limited to 4 digits). MCT dc wh/mi is attached with application.										
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	--	--
Fuel Properties												

Certification Summary Information Report

Test Group		LTSLV00.0L23			Evaporative/Refueling Family			--		
Consolidated List of Standards										
Exhaust Standards										
Cert Region		Federal			Cert/In-Use Code			Cert		
Vehicle Class		LDV/Passenger Car			Standard Level			Federal Tier 3 Bin 0		
Fuel		Electricity			Test Procedure			CVS 75 and later (w/o can. load)		
Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std	
150,000 miles	CO	--	--	--	--	--	--	0	0	
Cert Region		California + CAA Section 177 states			Cert/In-Use Code			Cert		
Vehicle Class		LDV/Passenger Car			Standard Level			California ZEV		
Fuel		Electricity			Test Procedure			Charge Depleting Highway		
Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std	
150,000 miles	CO	--	--	--	--	--	--	0	0	
150,000 miles	CO-COMP	--	--	--	--	--	--	0	0	
150,000 miles	CREE	--	--	--	--	--	--	0	0	
150,000 miles	NMOG+NOX-COMP	--	--	--	--	--	--	0	0	
Cert Region		Federal			Cert/In-Use Code			Cert		
Vehicle Class		LDV/Passenger Car			Standard Level			Federal Tier 3 Bin 0		
Fuel		Electricity			Test Procedure			Charge Depleting UDDS		
Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std	
150,000 miles	CO	--	--	--	--	--	--	0	0	
150,000 miles	CO-COMP	--	--	--	--	--	--	0	0	
150,000 miles	CREE	--	--	--	--	--	--	0	0	
150,000 miles	NMOG+NOX-COMP	--	--	--	--	--	--	0	0	

Certification Summary Information Report

Test Group	LTSLV00.0L23		Evaporative/Refueling Family				--		
Cert Region	Federal		Cert/In-Use Code				Cert		
Vehicle Class	LDV/Passenger Car		Standard Level				Federal Tier 3 Bin 0		
Fuel	Electricity		Test Procedure				Charge Depleting Highway		
Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
150,000 miles	CO	--	--	--	--	--	--	0	0
150,000 miles	CO-COMP	--	--	--	--	--	--	0	0
150,000 miles	CREE	--	--	--	--	--	--	0	0
150,000 miles	NMOG+NOX-COMP	--	--	--	--	--	--	0	0
Cert Region	California + CAA Section 177 states		Cert/In-Use Code				Cert		
Vehicle Class	LDV/Passenger Car		Standard Level				California ZEV		
Fuel	Electricity		Test Procedure				CVS 75 and later (w/o can. load)		
Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
150,000 miles	CO	--	--	--	--	--	--	0	0
Cert Region	California + CAA Section 177 states		Cert/In-Use Code				Cert		
Vehicle Class	LDV/Passenger Car		Standard Level				California ZEV		
Fuel	Electricity		Test Procedure				Charge Depleting UDDS		
Useful Life	Emission Name	Rounded Result	RAF	NMOG / NMHC	Upward Diesel Adjustment Factor	Downward Diesel Adjustment Factor	Mult DF	Add DF	Std
150,000 miles	CO	--	--	--	--	--	--	0	0
150,000 miles	CO-COMP	--	--	--	--	--	--	0	0
150,000 miles	CREE	--	--	--	--	--	--	0	0
150,000 miles	NMOG+NOX-COMP	--	--	--	--	--	--	0	0

Certification Summary Information Report

Test Group	LTSLV00.0L23	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	LTSLV00.0L23	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	LTSLV00.0L23	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