Hybrid Assistant Report

Info	
Car model	Prius Prime
VIN	JTDKA3FP303------
Odometer	Not available
Generated at	08/01/2018 21:34:55
Version	HA:108 HR:51

Index

Trip summary

Time	
Start	16/12/2017 15:27:00
Finish	16/12/2017 16:04:29

Trip					
	Total	**EV**	**%**	**No Fuel**	**%**
Distance	13.85 km	12.30 km	88%	12.30 km	88%
Time	37:28	34:04	91%	34:08	91%
Moving	23:48	20:32	86%	20:32	86%

Speed	
Average	22 km/h
Moving Average	35 km/h
EV Average	22 km/h
Max	101 km/h

Environment	
Start SOC	79.22%
End SOC	62.35%
Avg Ambient Temperature	0°C
Altitude Delta	112

Fuel	
Consumption	1.499 L/100km
Usage	0.208 L

Fuel	
Cost	0.353

Trip summary values are detailed by Time, Moving and EV.
Time is the total trip time.
Moving stats regards only the fraction of time while the car was not standing still.
EV stats are accounted only when the petrol engine is stopped.
No Fuel sums EV driving with the petrol engine running without fuel like coasting at high speed or driving down a slope.

Device info

Phone	
Manufacturer	samsung
Model	SM-G531F
Product	grandprimeveltexx
Android SDK	22
Hostname	I-GINO_GP
Screen	540x960
Scale	1.5

OBD	
Connection type	Bluetooth
Model	OBDLink LX
MAC Address	00:04:3E:9A:5C:8A
Name	ELM327 v1.3a
Manufacturer	SCANTOOL.NET LLC
Firmware	STN1155 v4.0.0

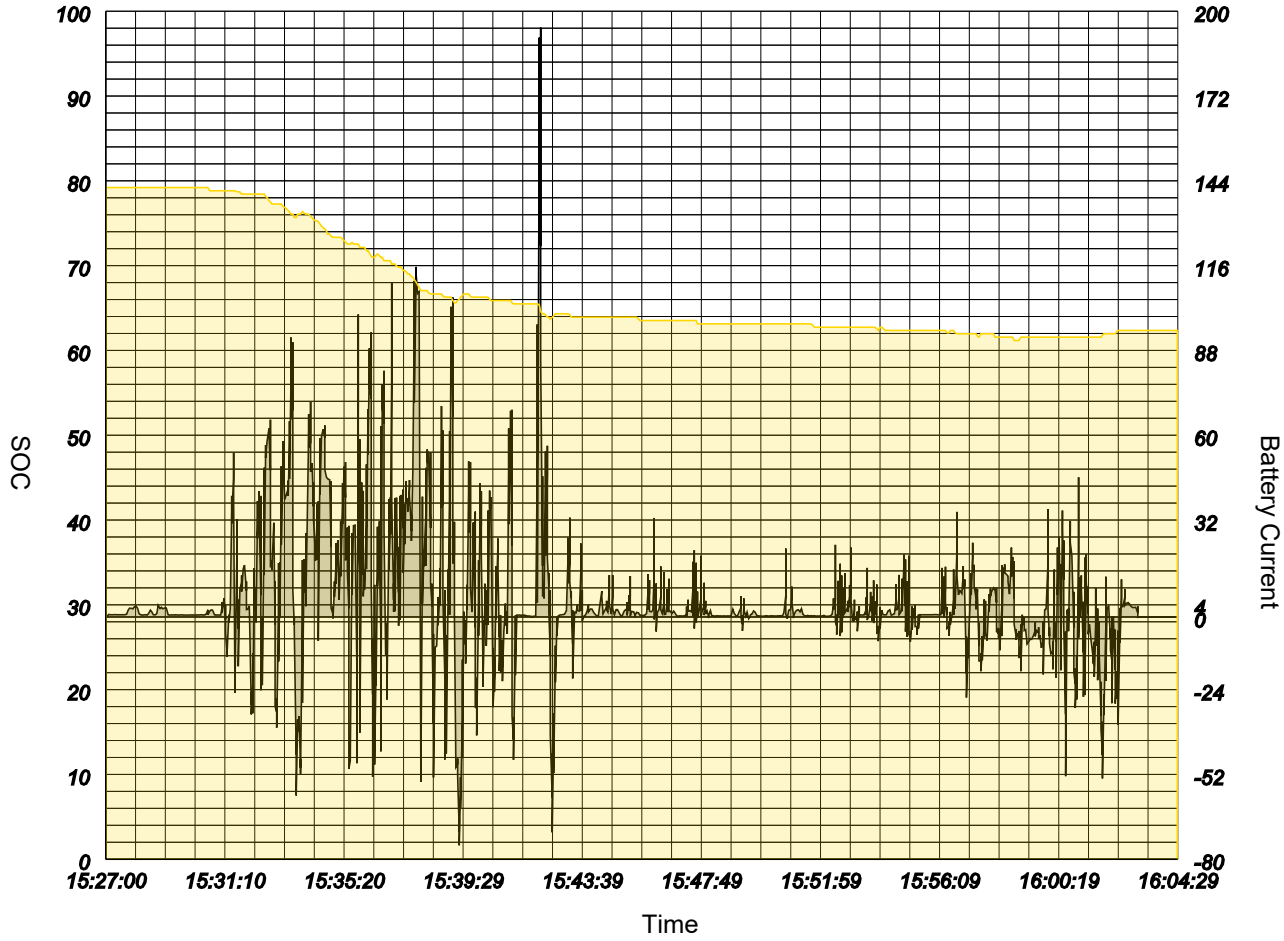
Requests per second	
Average	17
Start	22
End	1
Delta	-21
Min	1
Max	24

Sampling	
Start time	16/12/2017 15:27:00
End time	16/12/2017 16:04:29
Duration	37:28
Samples	11410
Average	0.20 sec
Standard deviation	0.10 sec
Disconnections	0
Corrupted frames	0/42,237

Information about phone and OBD adapter.
The sampling average is the time taken for reading all sensors, in seconds: the lowest, the fastest Hybrid Assistant will run.
Speed is mainly affected by OBD adapter and by other apps running on the phone.

SOC Statistics

SOC


SOC
Battery Current
Time
100
90
80
70
60
50
40
30
20
10
0
200
172
144
116
88
60
32
4
0
-24
-52
-80
15:27:00
15:31:10
15:35:20
15:39:29
15:43:39
15:47:49
15:51:59
15:56:09
16:00:19
16:04:29

SOC	
Average	67.03%
Start	79.22%
End	62.35%
Delta	-16.86%
Min	61.18%
Max	79.22%
Standard deviation	6.28%

Variations	
Difference from optimum	7.03%
SOC gained from brakings	0.00%
SOC gained from coasting	5.49%
Total SOC gained	5.49%
SOC charged by ICE	0.78%

High Voltage Battery Statistics

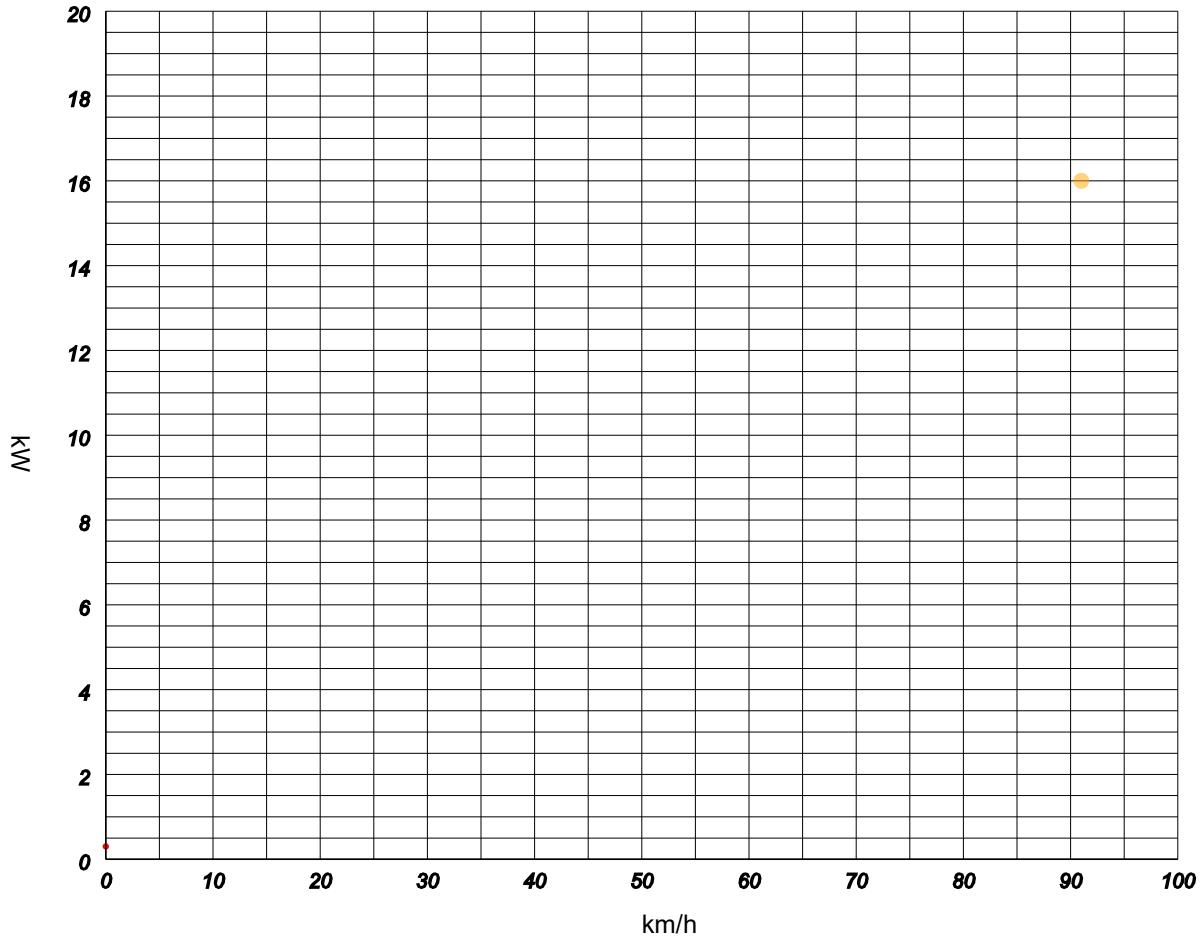
Levels		
	Current	Voltage
Avg	6.71 A	355.53 V
Min	-75.40 A	328.00 V
Max	194.60 A	372.00 V

Power	
	Power

Power	
Avg	2.333 kW
Start	0.295 kW
End	0.000 kW
Min	-27.882 kW
Max	63.829 kW

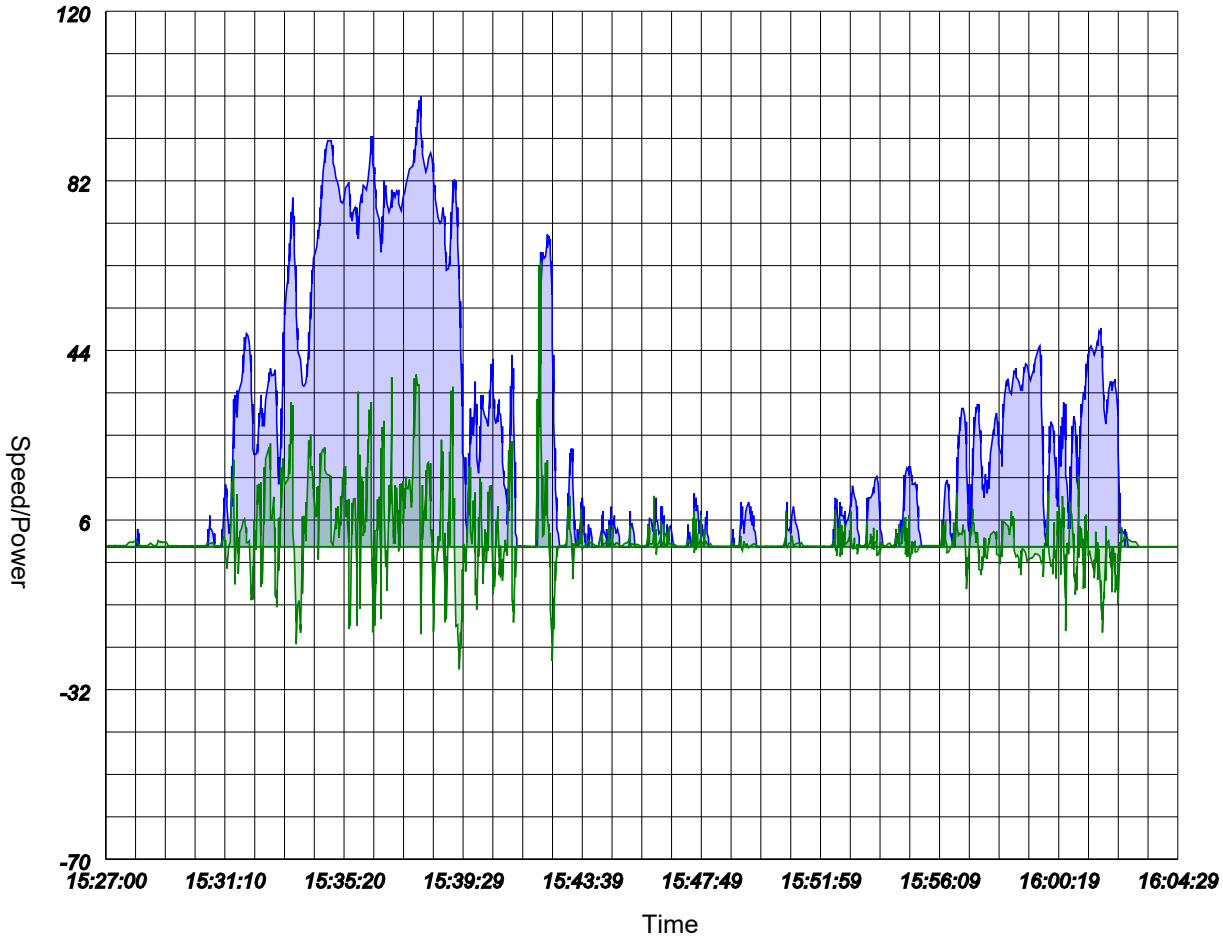
Energy	
Total energy from the battery	2.117 kWh
Total energy to the battery	0.679 kWh
Battery energy balance	-1.438 kWh
Average services consumption	0.397 kW

Average Power Usage



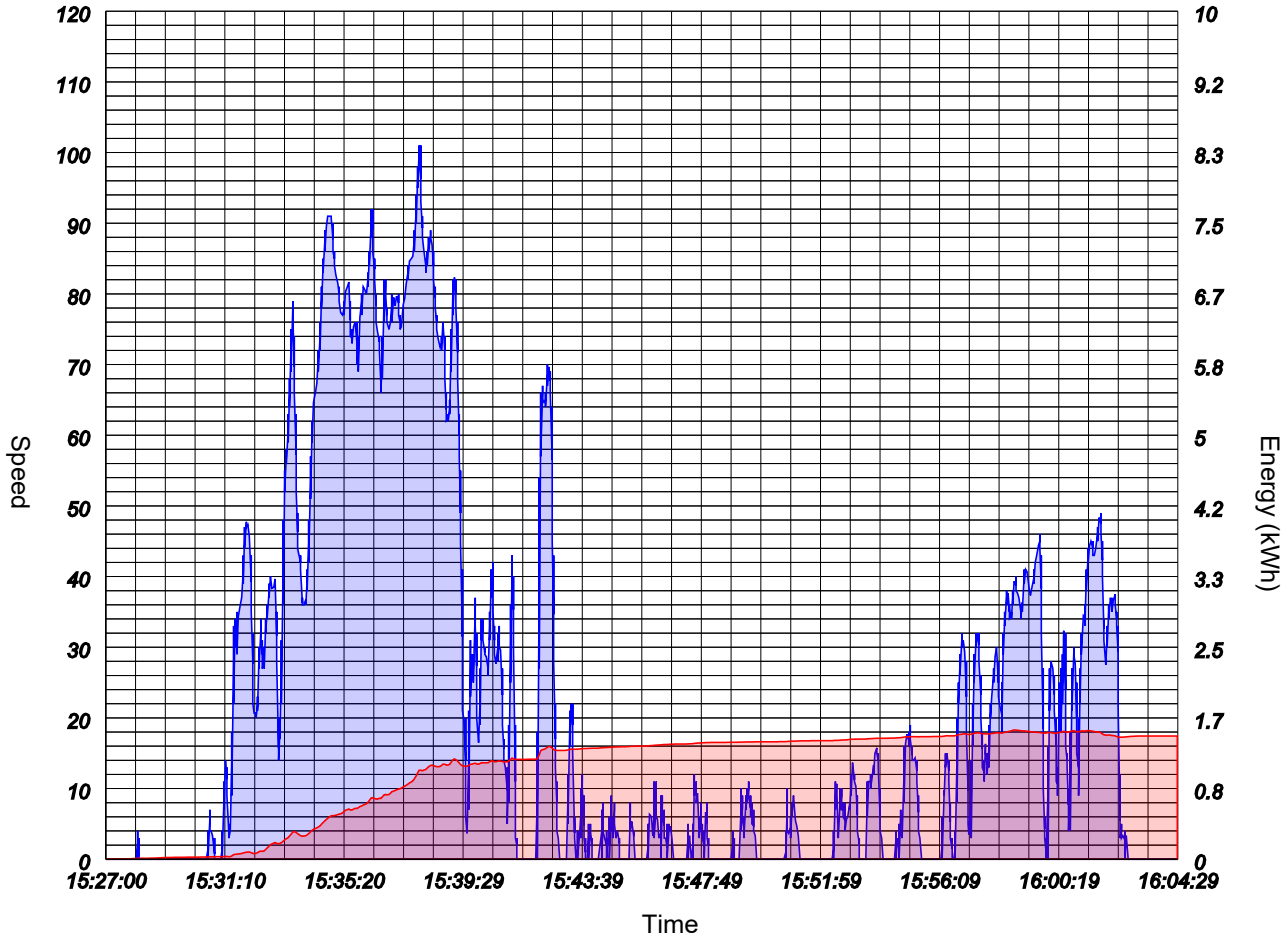
Plot of power required to keep a given speed.
Values are collected only when a constant speed is maintained long enough to have a consistent reading, so a trip with many different speeds may not gather enough data to plot.
Since required energy is heavily influenced by road slope, you should drive on a plain road to have a correct reading.

Power Distribution



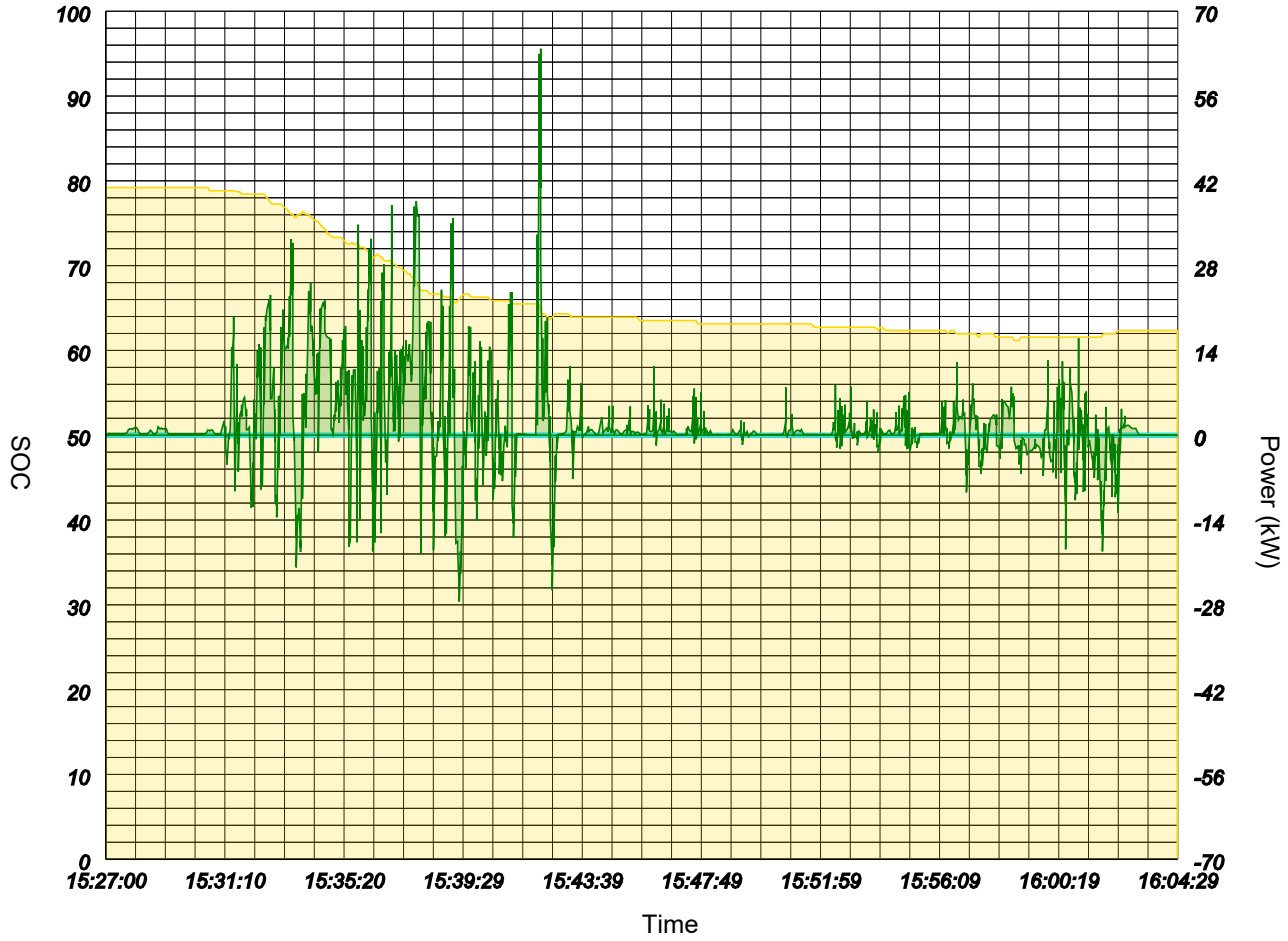

Speed
HV Battery Power

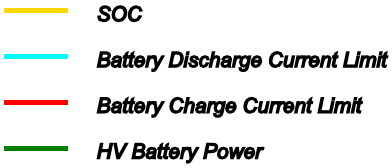
Energy Balance




Speed
Energy

CCL and DCL


100
90
80
70
60
50
40
30
20
10
0
SOC
70
56
42
28
14
0
-14
-28
-42
-56
-70
Power (kW)
15:27:00
15:31:10
15:35:20
15:39:29
15:43:39
15:47:49
15:51:59
15:56:09
16:00:19
16:04:29
Time



Charge and discharge kW limits for the battery.
These values may change with battery level and temperature.
When the battery is nearly full, charge limit is reduced.
On low temperatures, charge and discharge limits are reduced to preserve battery life.

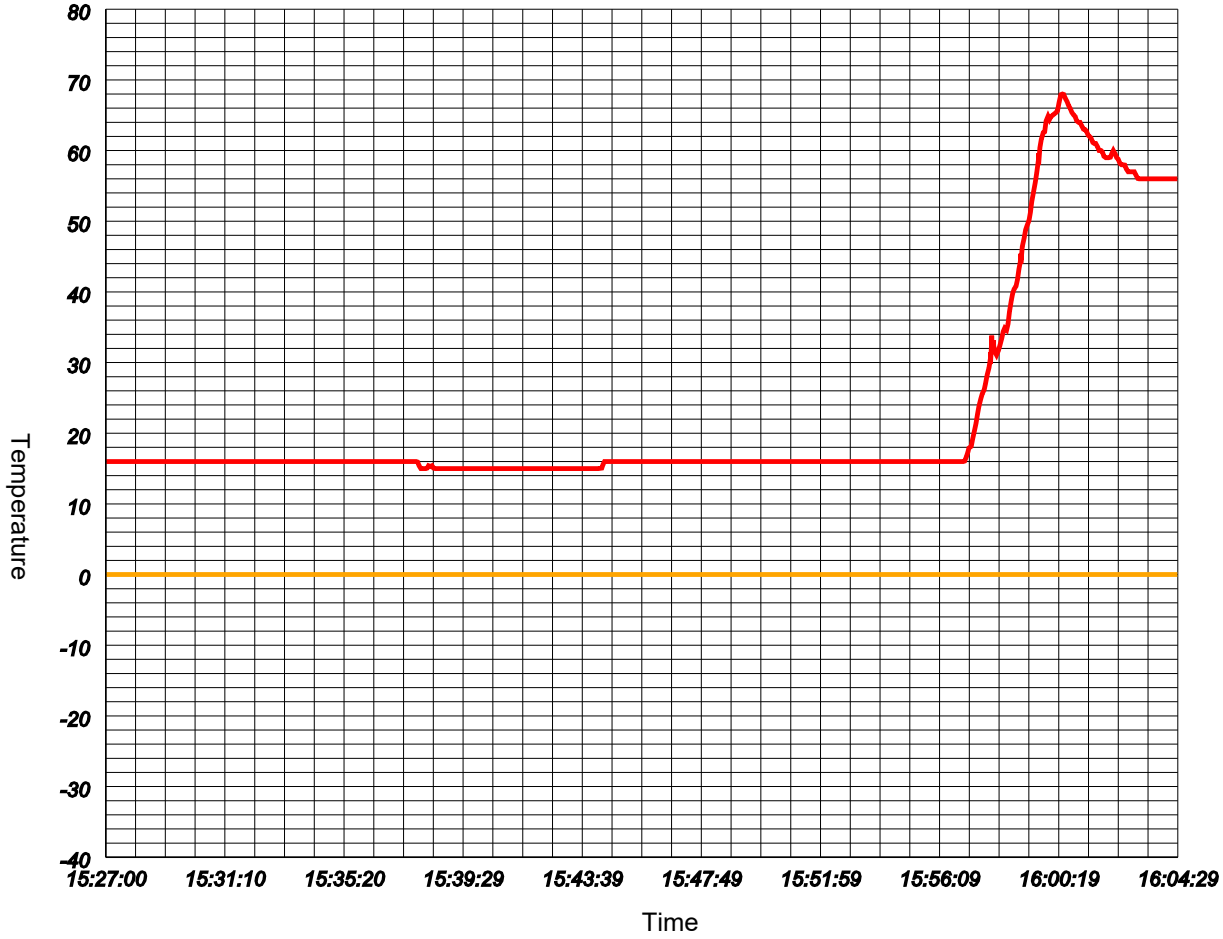
High Voltage Battery Health

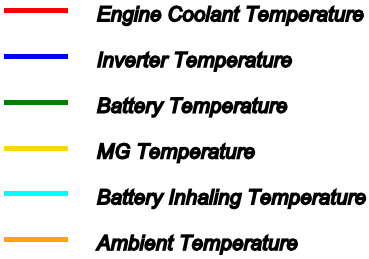
Be sure to follow the guideline for HV Check as specified on the official website.

No HV Health data found.

Temperature

Powertrain Temperature





Temperature		
	Ambient	Coolant
Avg	0°C	22°C
Min	0°C	15°C
Max	0°C	68°C

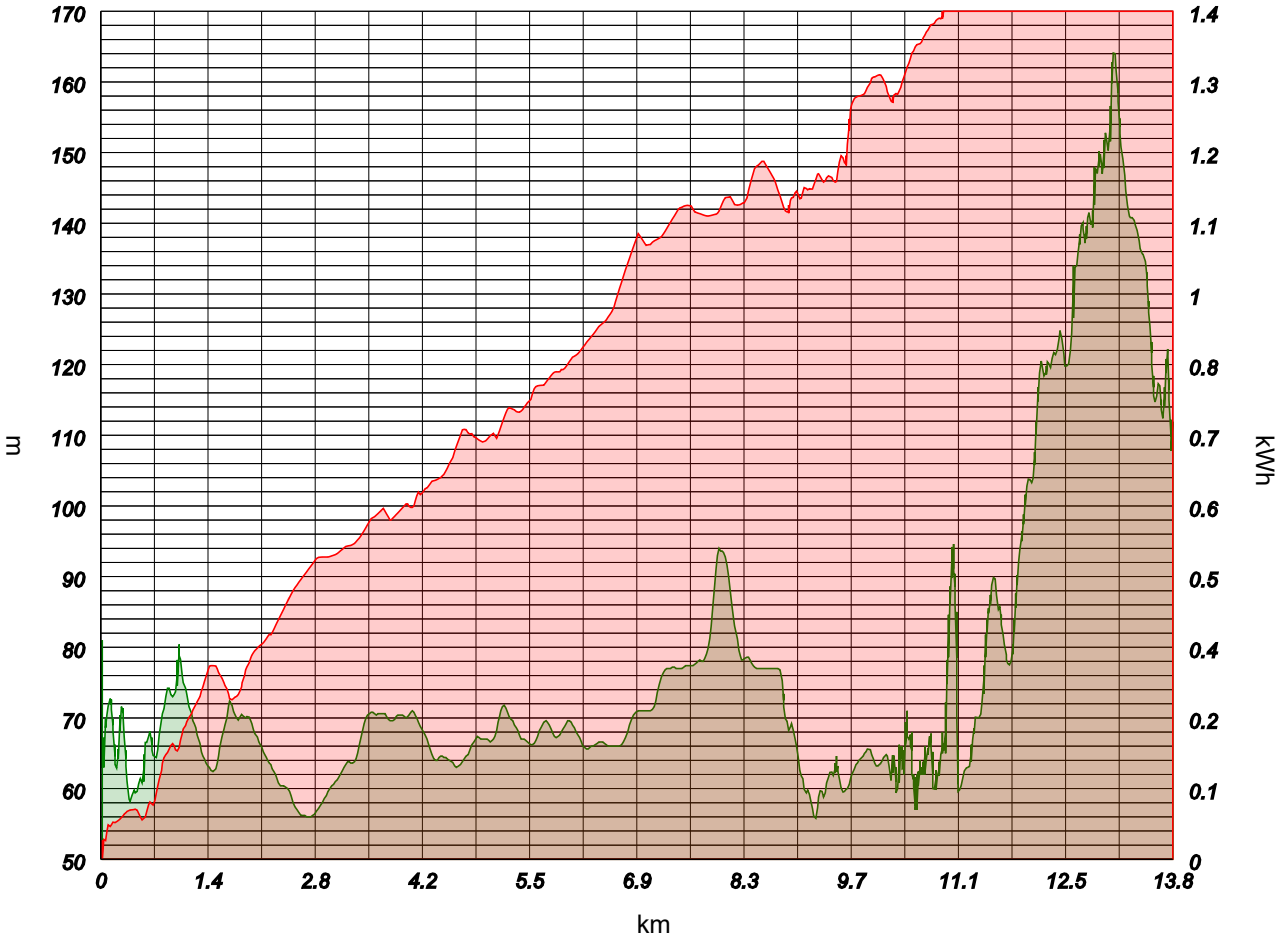
Time to reach given temperature	
Coolant Temperature	Time
40°C	1:59 sec
50°C	2:31 sec
60°C	2:56 sec
65°C	3:10 sec

HV Battery Temperature Sensors			
Sensor	1	2	3
% Max	0%	0%	0%
Max	0°C	0°C	0°C
Avg	0°C	0°C	0°C
Min	0°C	0°C	0°C

Temperatures for each car component.
Engine coolant temperature is the water temperature, while inverter and MG is the actual component temperature.
For inverters and MGs, only the most significant value among all components is shown.
HV Battery has multiple sensors: usually the inner ones are higher that the outer ones. % Max shows time percentage the specified sensor was the highest of the pack.

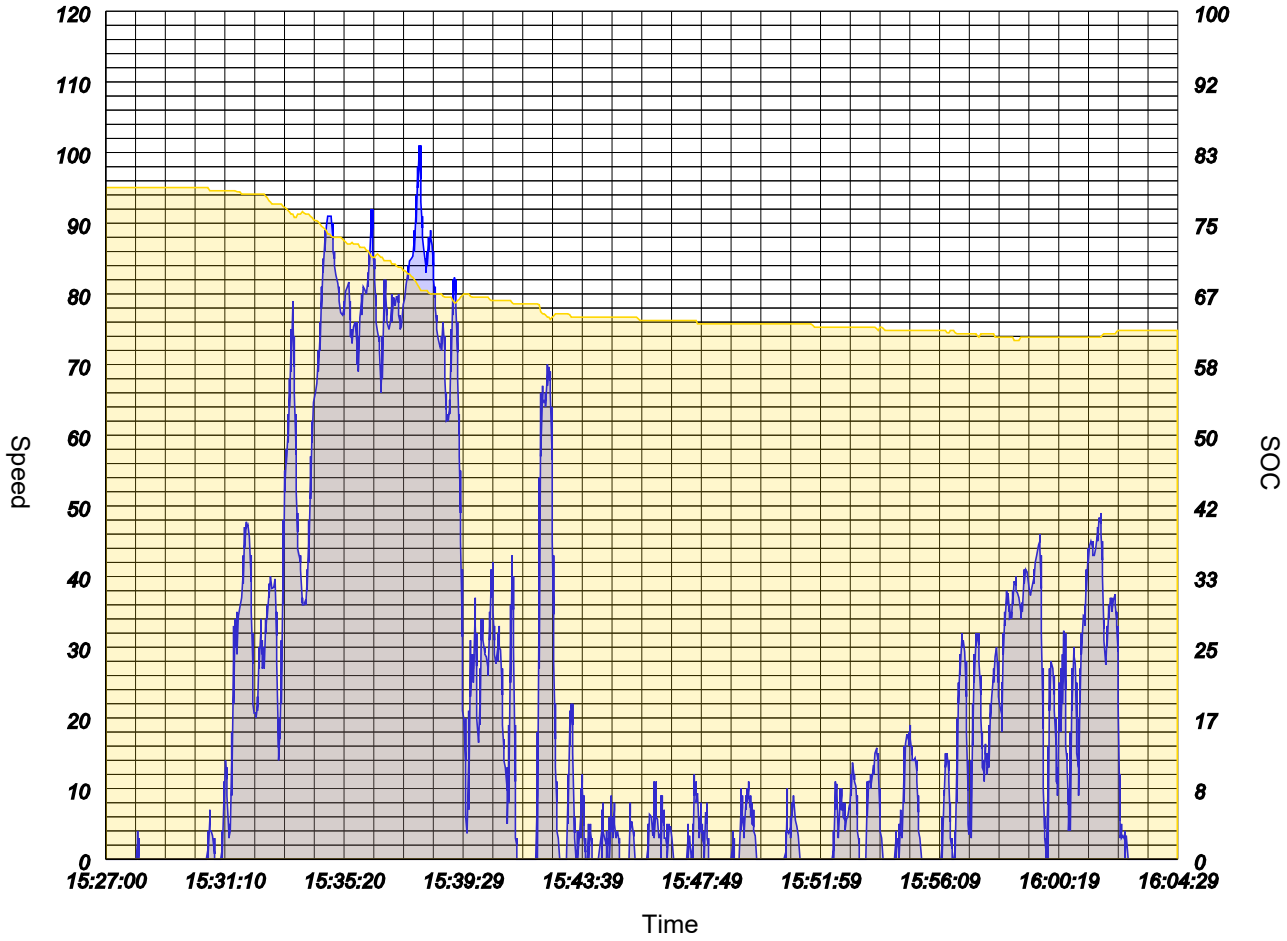
Trip

Elevation Profile



Altitude	
Avg	76
Start	0
End	112
Min	0
Max	166
Upward	388
Downward	357
Altitude Delta	112

Speed


120
110
100
90
80
70
60
50
40
30
20
10
0
Speed
100
92
83
75
67
58
50
42
33
25
17
8
0
SOC
15:27:00
15:31:10
15:35:20
15:39:29
15:43:39
15:47:49
15:51:59
15:56:09
16:00:19
16:04:29
Time

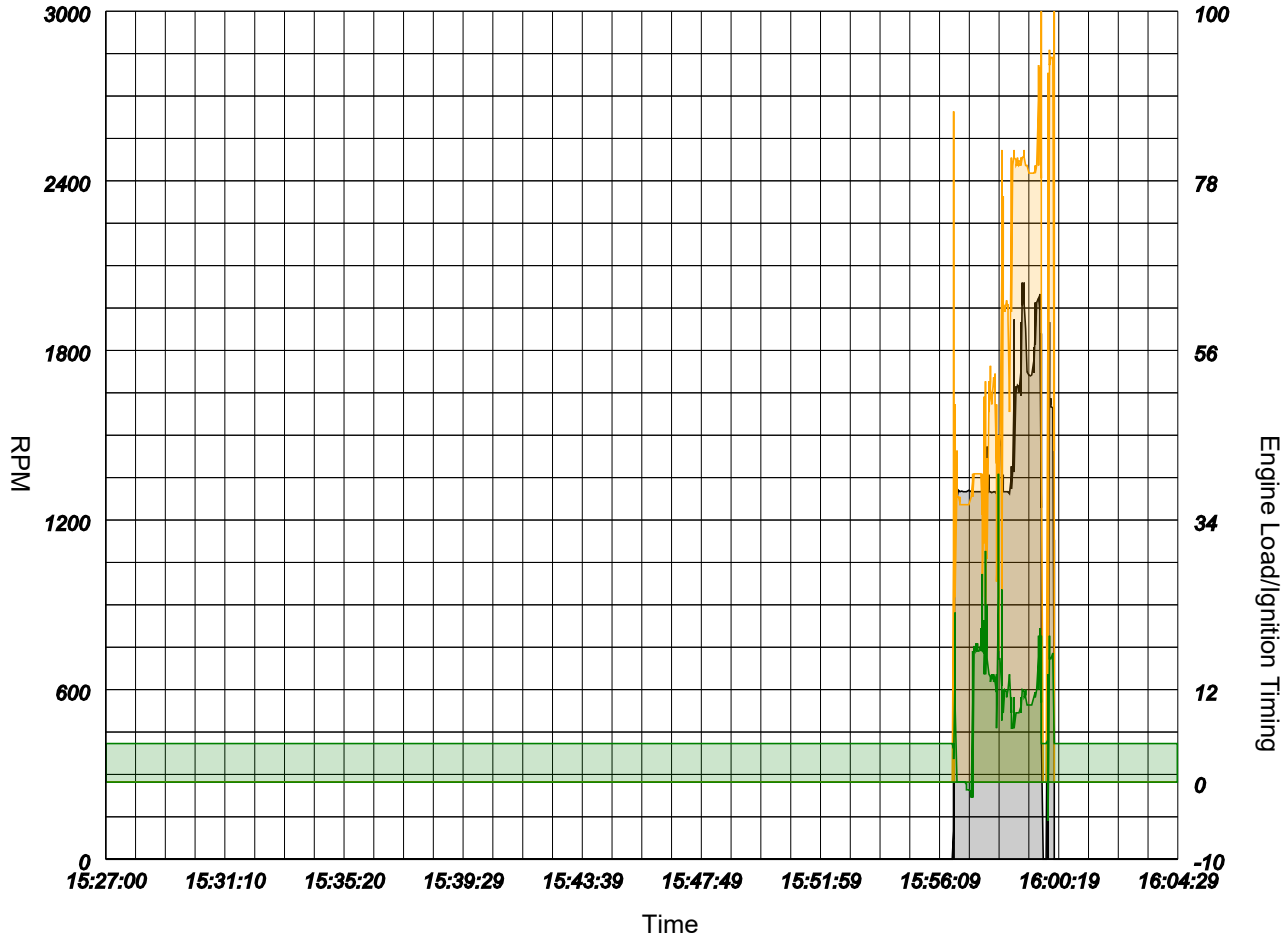
Speed	
Average	22 km/h
Moving Average	35 km/h
EV Average	22 km/h
Max	101 km/h

Engine

	RPM	Load	Timing
Avg	1,465	60%	6°
Max	2,040	100%	40°
Min	-	-	-5°

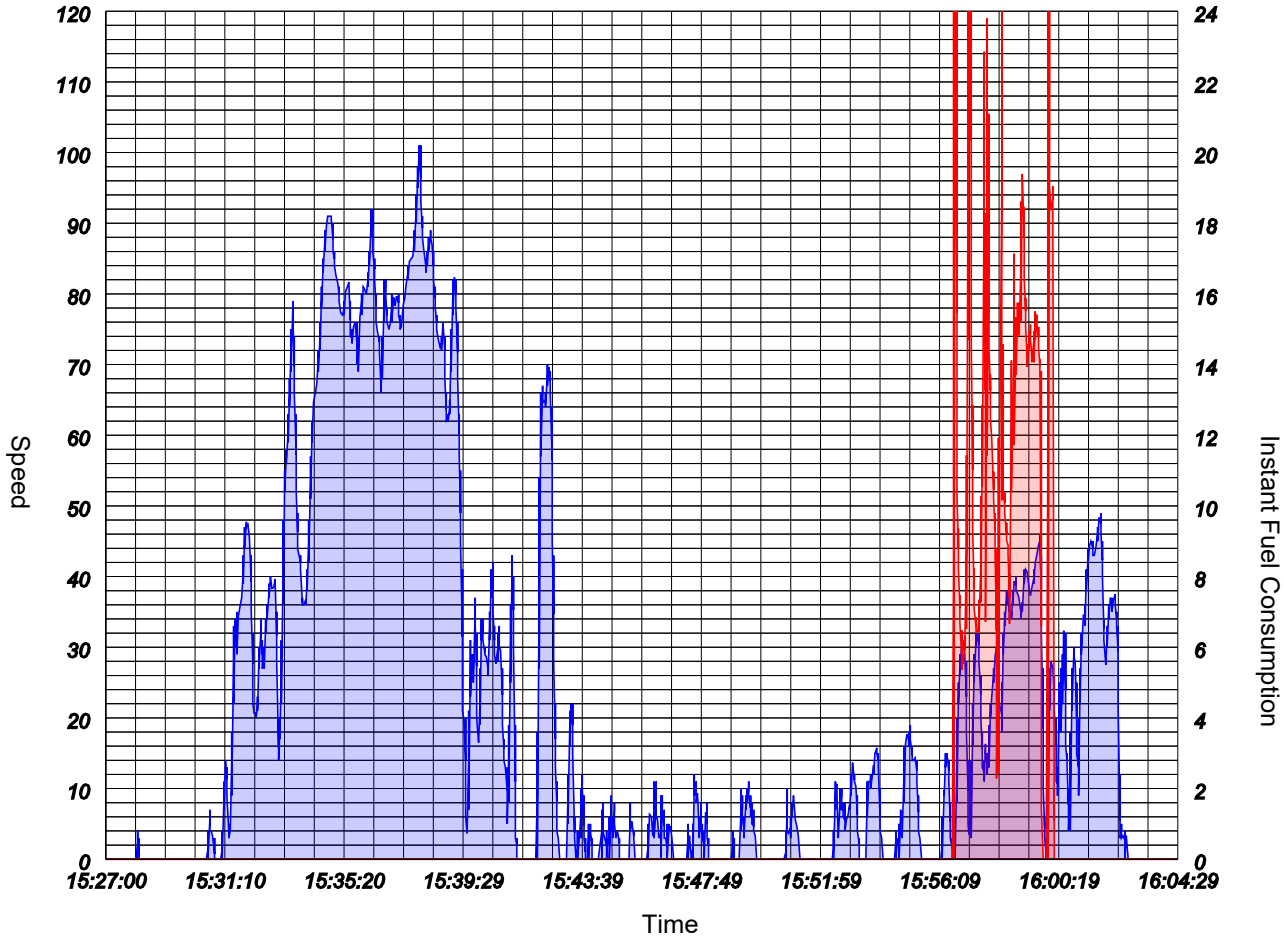
Ignitions	
Total	2
Short	0

RPM


3000
2400
1800
1200
600
0
RPM
100
78
56
34
12
0
-10
Engine Load/Ignition Timing
15:27:00
15:31:10
15:35:20
15:39:29
15:43:39
15:47:49
15:51:59
15:56:09
16:00:19
16:04:29
Time

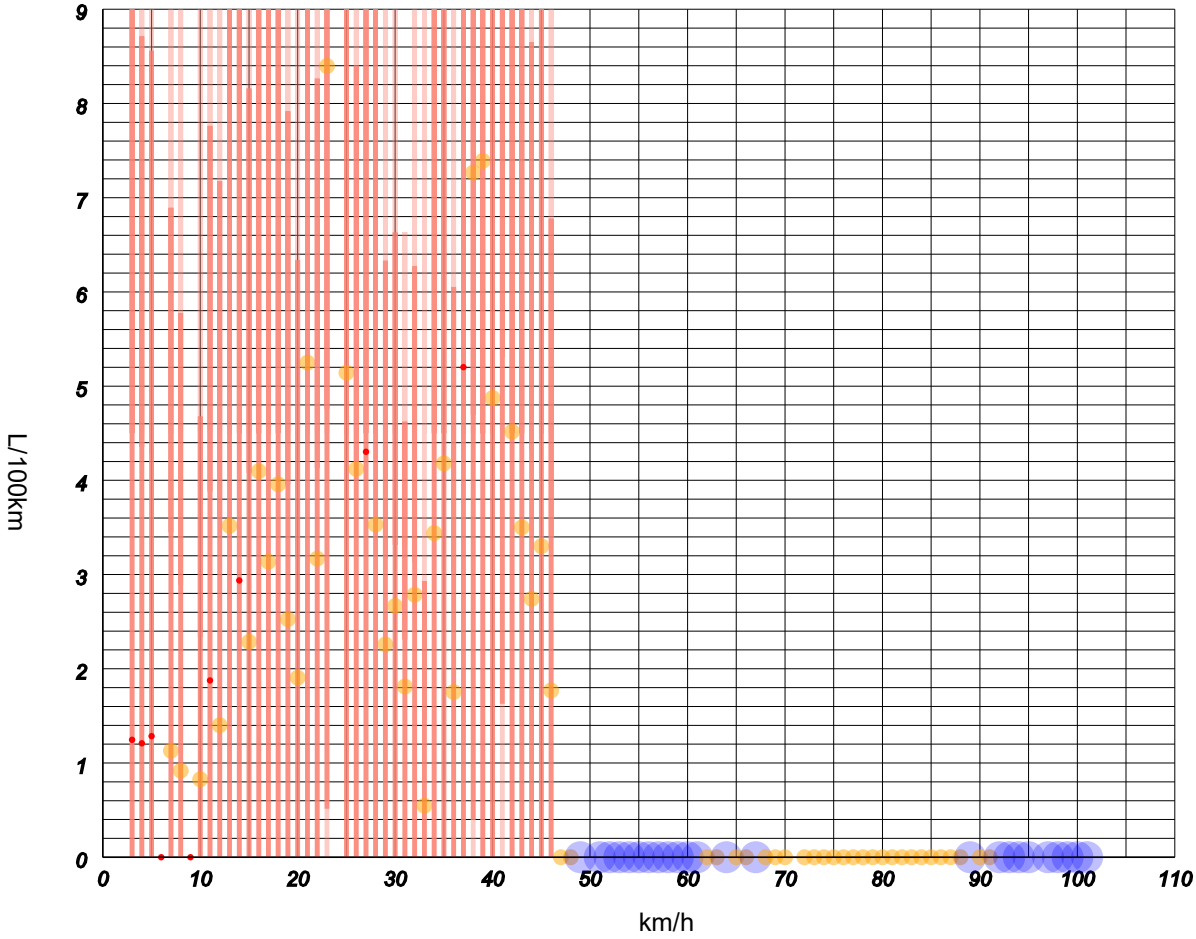

RPM
Engine Load
Ignition Timing

Instant Fuel Consumption

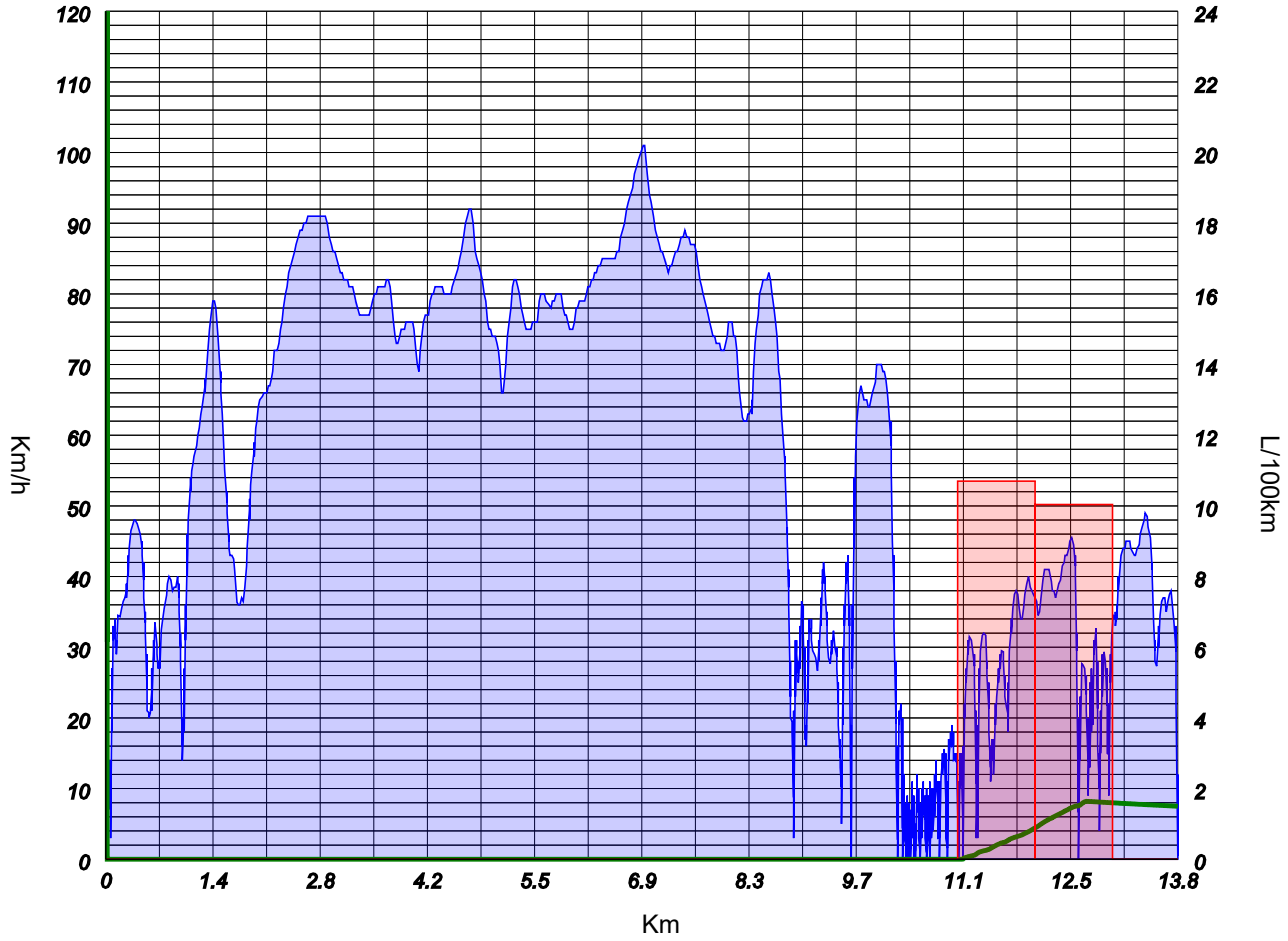


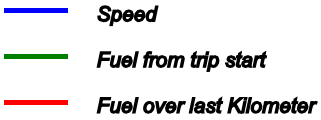

Speed
Instant Fuel Consumption

Consumption Map



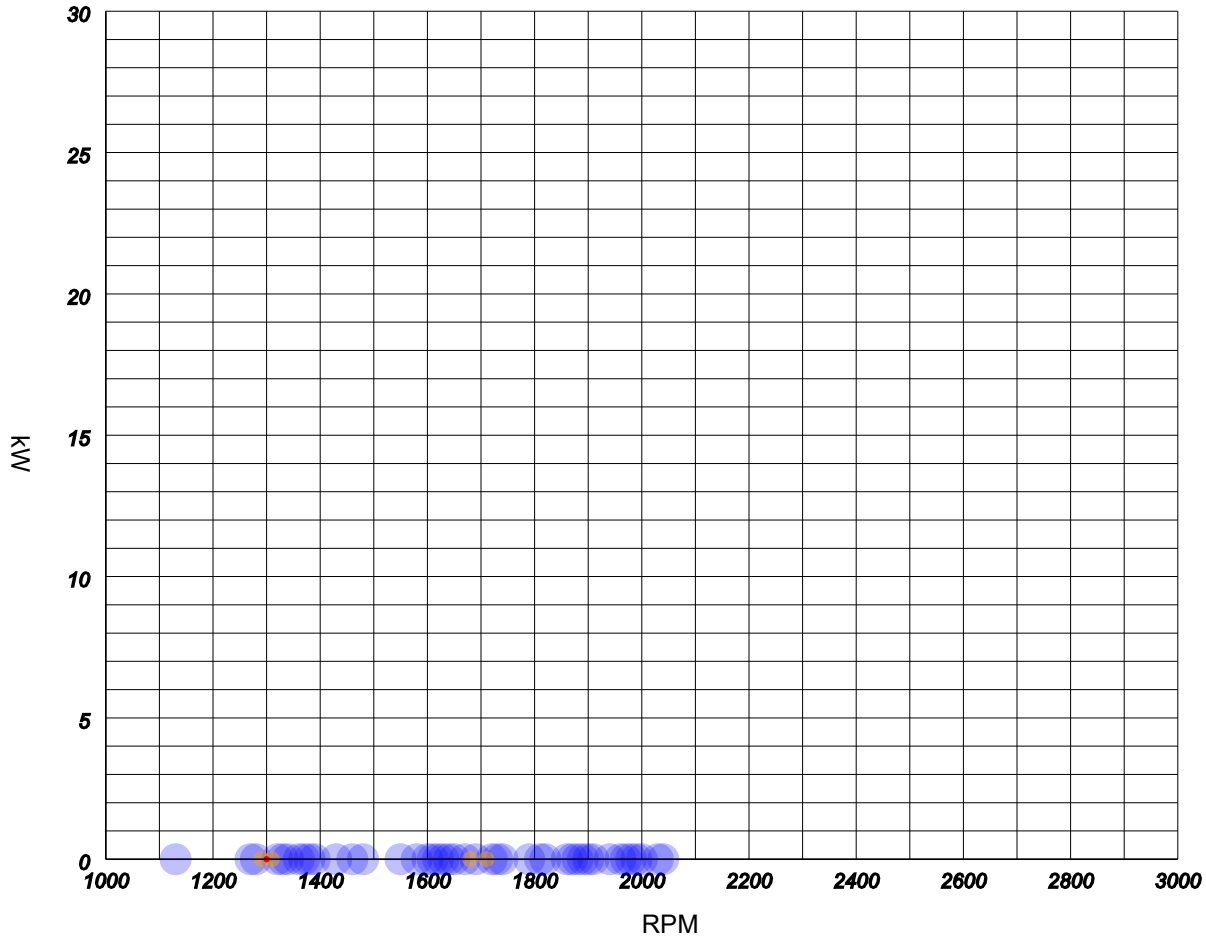
Fuel usage over distance





Energy	
Energy from the petrol engine	0.00 kWh
Energy Consumption	10.39 kWh/100km
Fuel Consumption	1.50 L/100km
Fuel Usage	0.208 L

Power Map



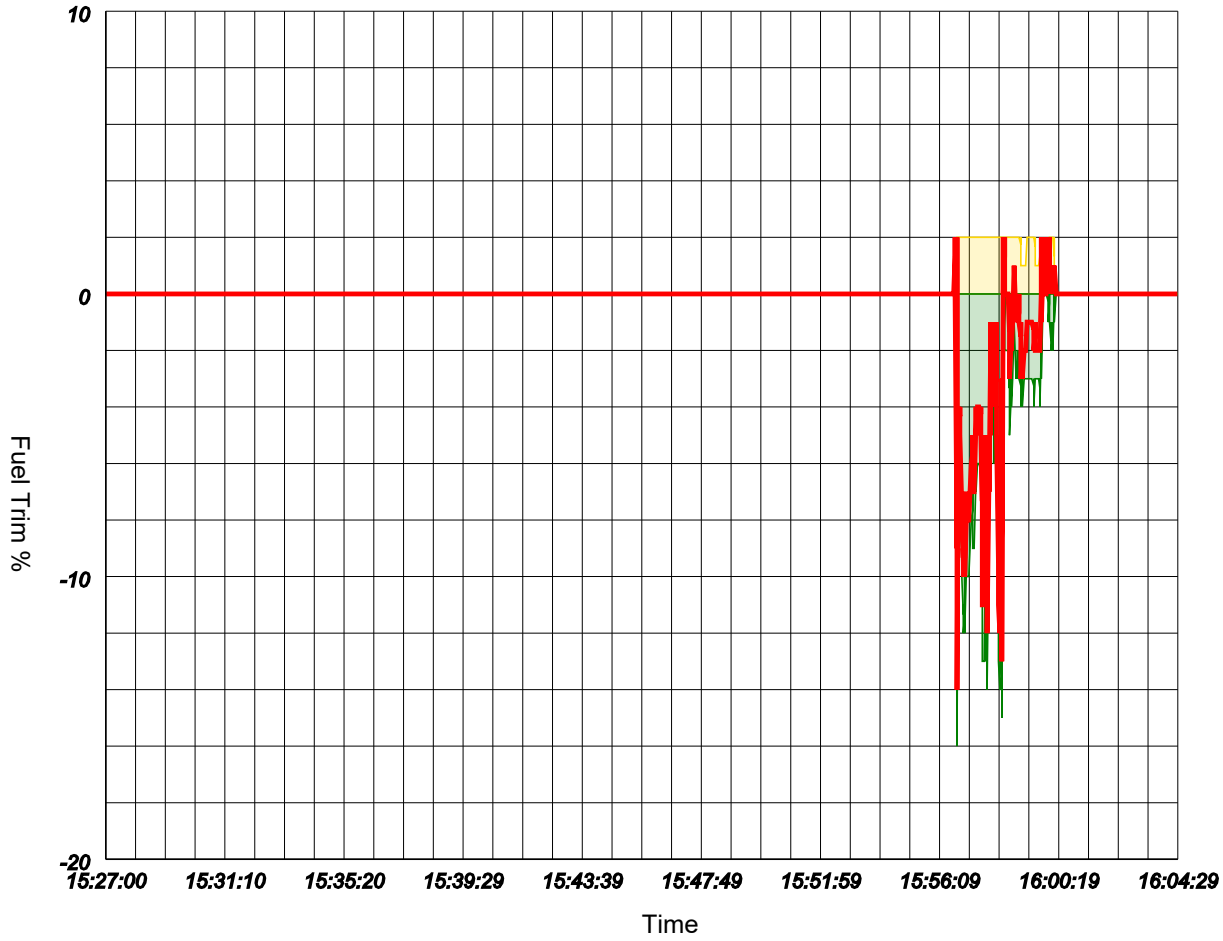
Engine		
State	%	Longest Time
ICE Running	9%	3:03 sec
ICE Spinning	0%	0:00 sec
ICE Off	91%	29:39 sec

EV Statistics	
Trip Length	13.85 km
EV Range	12.30 km
Excessive EV events	0

EV States		
State	%	Longest Time
EV	91%	29:39 sec
EV traction	0%	0:00 sec
Excessive EV	0%	0:00 sec

Fuel Trims

Fuel Trim


10
0
-10
-20
Fuel Trim %
15:27:00
15:31:10
15:35:20
15:39:29
15:43:39
15:47:49
15:51:59
15:56:09
16:00:19
16:04:29
Time

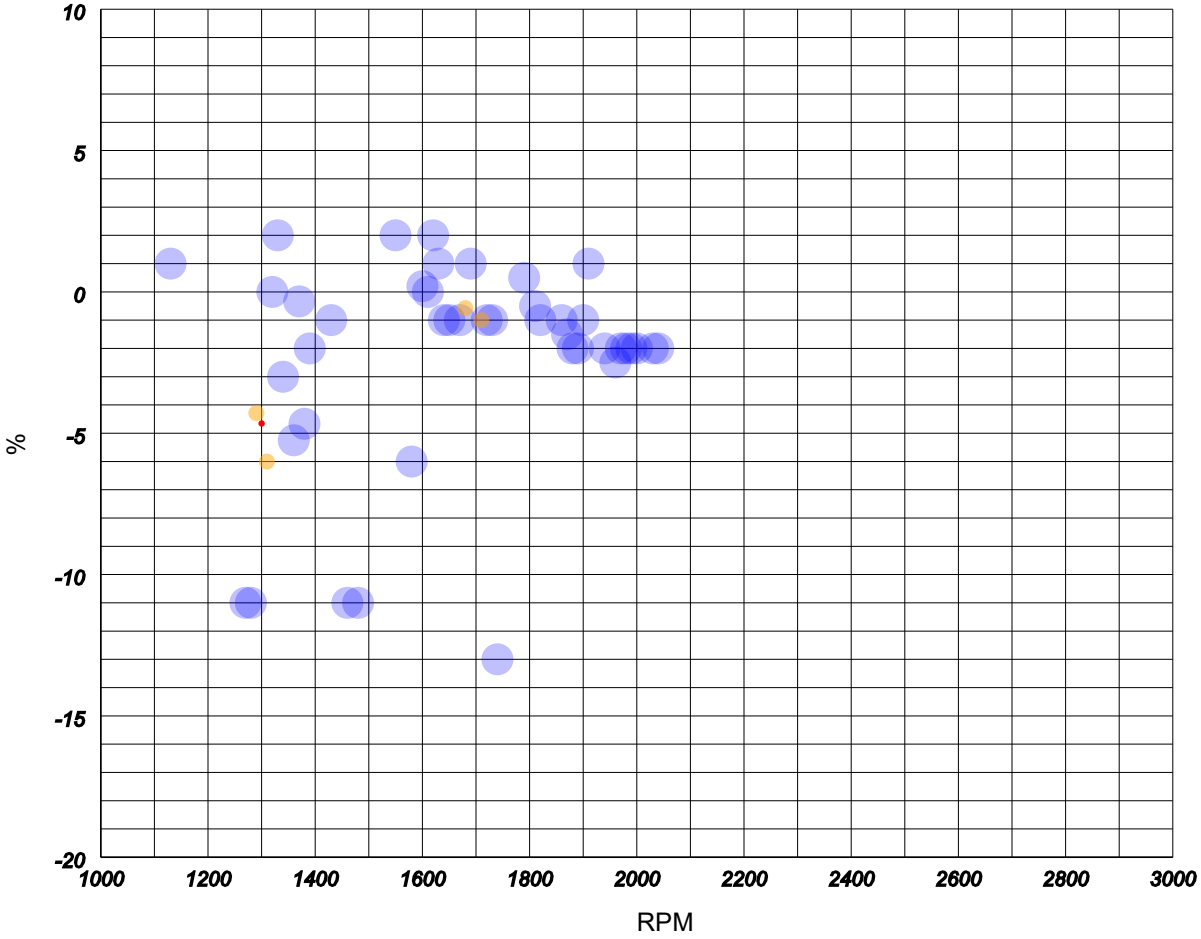
Long Term Fuel Trim

Short Term Fuel Trim

Effective Fuel Trim

Fuel Trims are the percentage of change in fuel over time.
The engine control unit keeps proper air:fuel ratio by fine-tuning the amount of fuel going into the engine.

Fuel Trim Map



For each RPM value of the petrol engine, the applied Fuel Trim plotted as a dot.
This map can be used to verify LGP-operating engines working condition.

Fuel Trim			
	Short Term	Long Term	Effective
Avg	-0%	0%	-0%
Min	-16%	0%	-14%
Max	0%	2%	2%

BSFC Statistics

Brake specific fuel consumption (BSFC) is a measure of the fuel efficiency of an engine that burns fuel and produces rotational power.

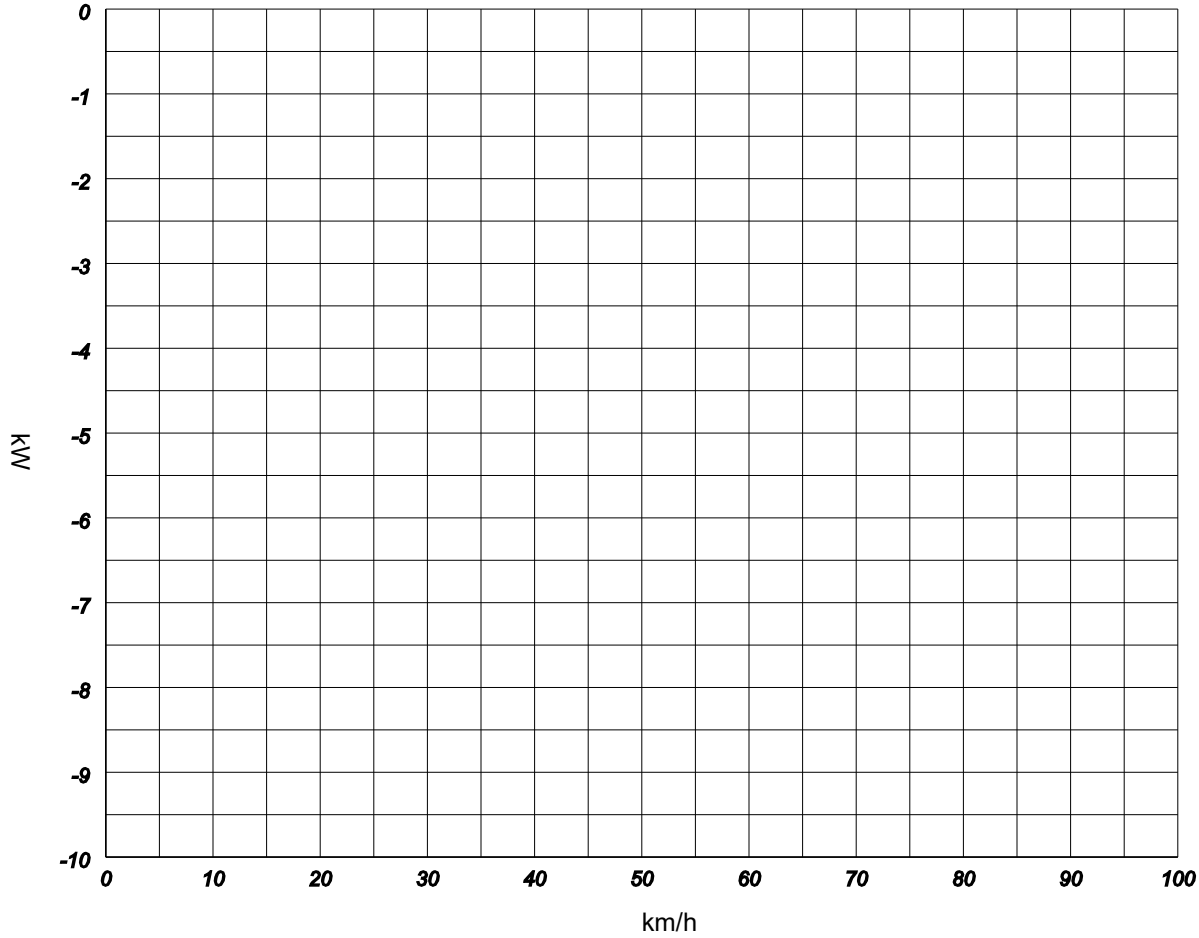
No data available for BSFC statistics.

Braking

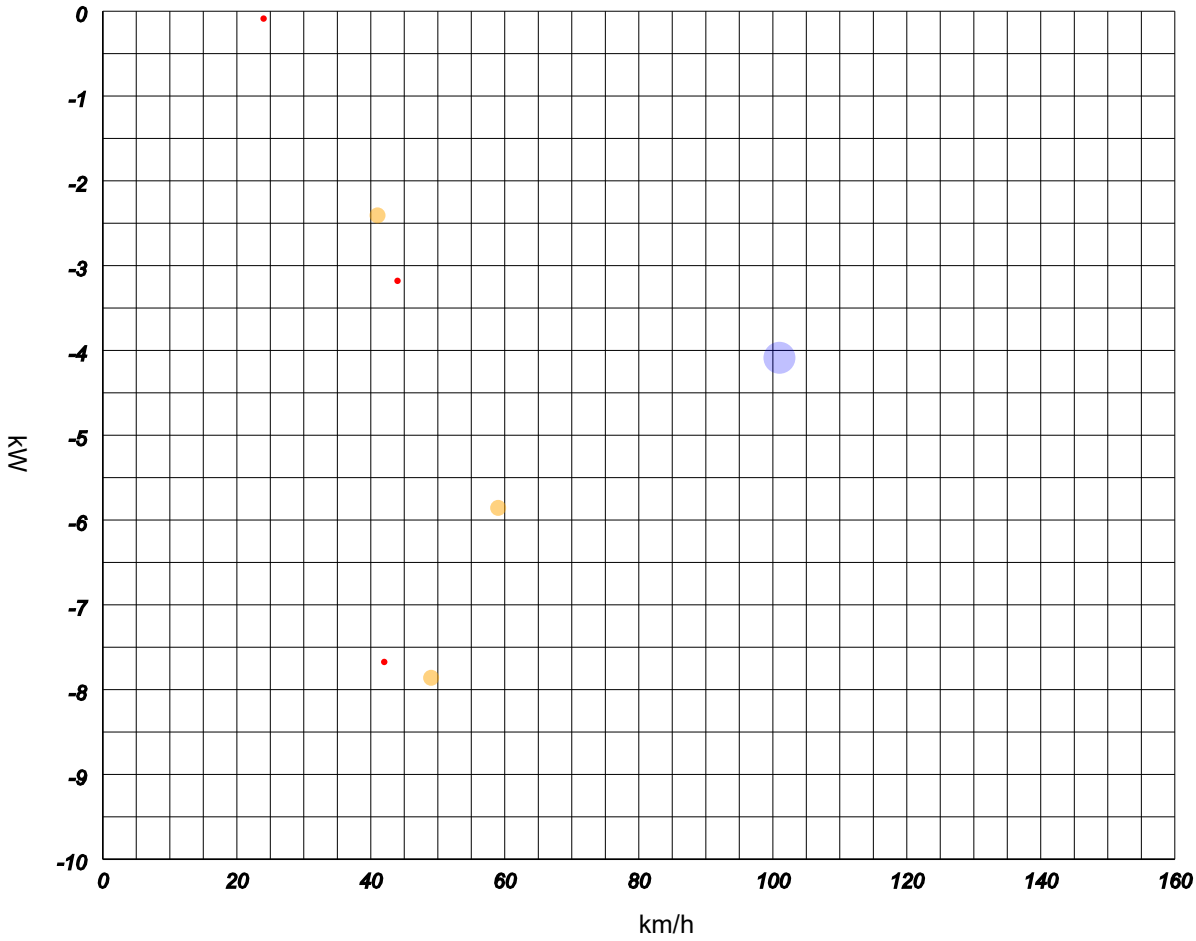
Brakings	0
Good Brakings	0
Bad Brakings	0
Mixed Brakings	0
Braking Efficiency	0.00 %
Braking while moving	0%

Longest brake event	0:00 sec
Total energy recovered by braking	0.000 kWh

Recovery by braking



Recovery by coasting



Car Driving

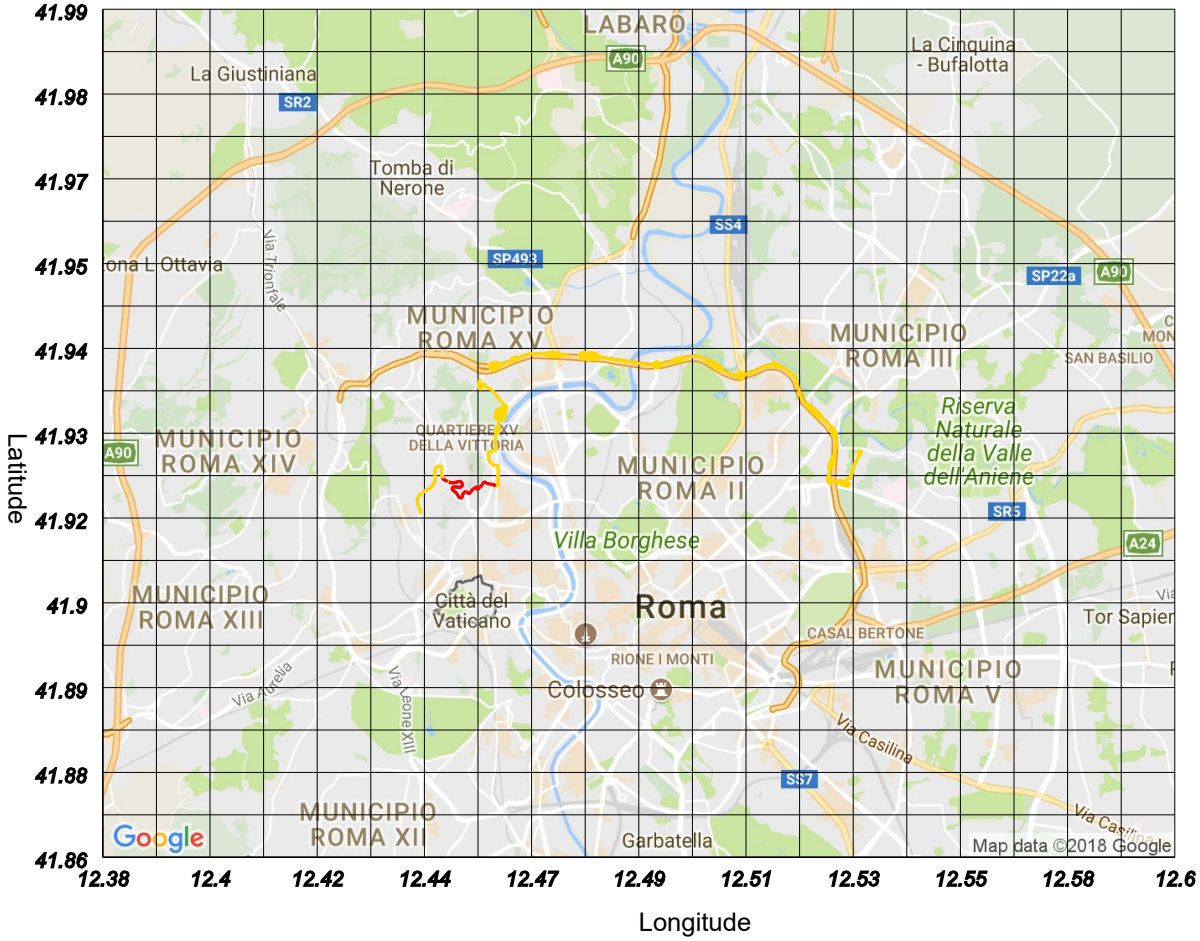
State	%	Longest Time
Pulse	0%	0:00 sec
Approximate Glide	0%	0:00 sec
Coasting	55%	10:18 sec
Heretical	0%	0:00 sec
Accelerator pressed	0%	0:00 sec
Accelerating	7%	0:01 sec
Moving	65%	10:18 sec

Car operational state statistics during the trip.
States are expressed as percentage over the entire trip time and longest time span the state persisted.

Pulse: accelerating with nearly all ICE power given to traction.
Approximate Glide: cruising with no electrical or mechanical traction (approximate evaluation).
Coasting: cruising with no accelerator or brake applied.
Heretical: cruising with MG1 electric motor providing traction.
Accelerator pressed: accerator pedal is pressed, even if not actually accelerating.
Accelerating: car speed is increasing.
Moving: car is not stopped.

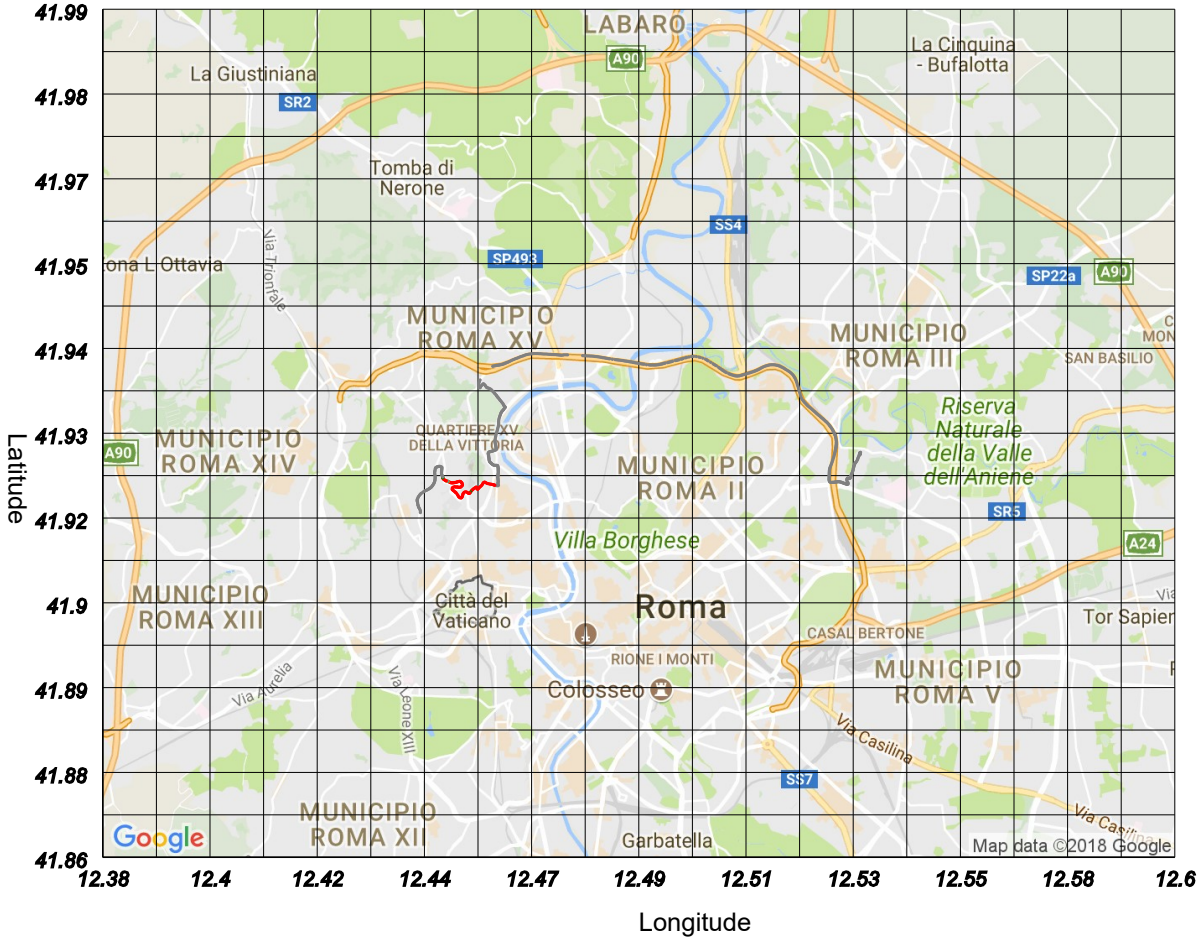
Maps

EV Map


41.99
41.98
41.97
41.95
41.94
41.93
41.92
41.9
41.89
41.88
41.86
Latitude
12.38
12.4
12.42
12.44
12.47
12.49
12.51
12.53
12.55
12.58
12.6
Longitude
LABARO
La Giustiniana
La Cinquina - Bufalotta
Tomba di Nerone
MUNICIPIO ROMA XV
MUNICIPIO ROMA III
SAN BASILIO
Riserva Naturale della Valle dell'Aniene
MUNICIPIO ROMA XIV
QUARTIERE XV DELLA VITTORIA
MUNICIPIO ROMA II
Villa Borghese
MUNICIPIO ROMA XIII
Città del Vaticano
Roma
CASAL BERTONE
Tor Sapien
RIONE I MONTI
Colosseo
MUNICIPIO ROMA V
Via Casilina
MUNICIPIO ROMA XII
Garbatella
Google
Map data ©2018 Google

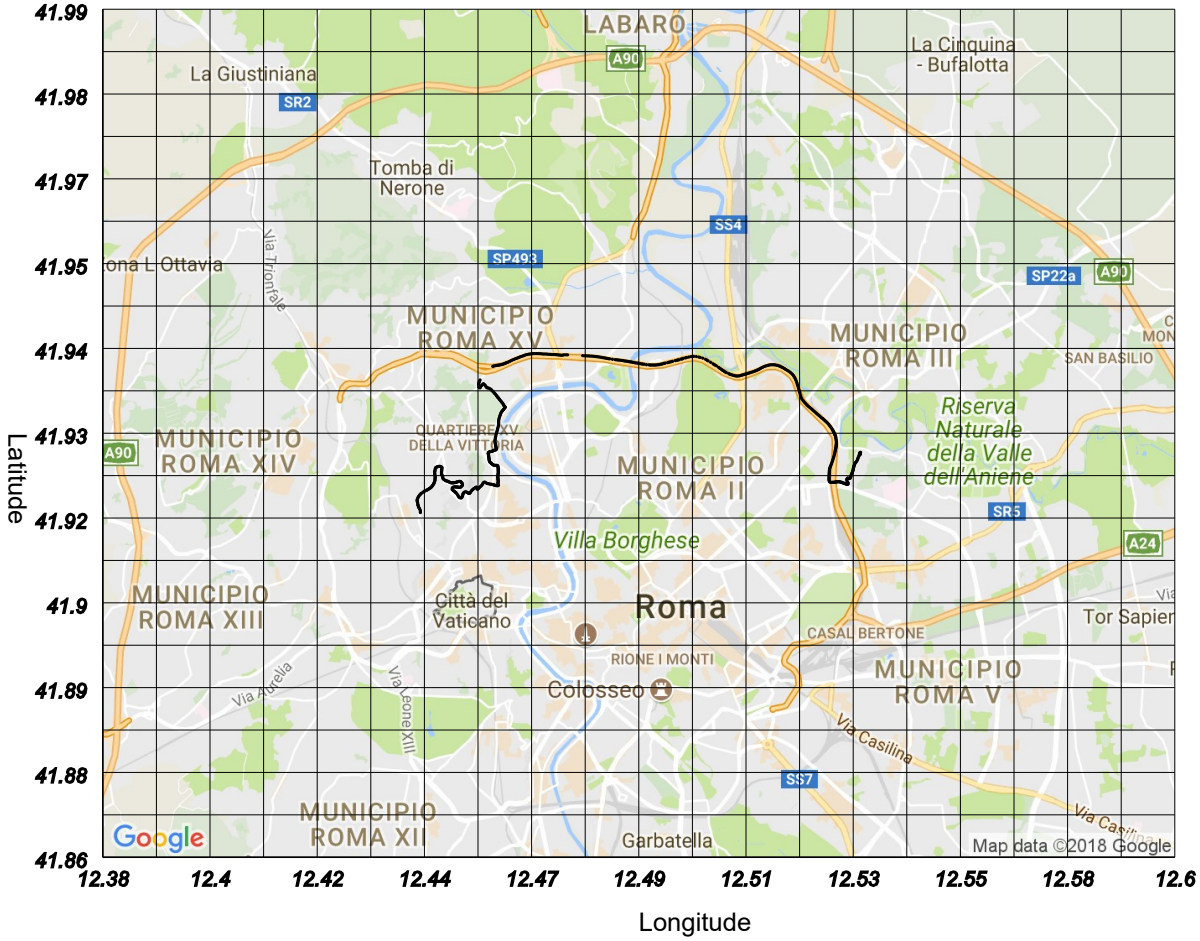
Point size is proportional to applied power

Instant Consumption Map




Engine Off
less than 3L/100km
less than 4L/100km
less than 5L/100km
more than 5L/100km

Brake Map


41.99
41.98
41.97
41.95
41.94
41.93
41.92
41.9
41.89
41.88
41.86
Latitude
12.38
12.4
12.42
12.44
12.47
12.49
12.51
12.53
12.55
12.58
12.6
Longitude
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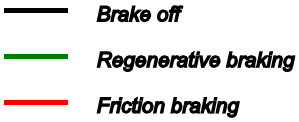
Colosseo
MUNICIPIO ROMA V
Via Casilina
MUNICIPIO ROMA XII
Garbatella
Google
Map data ©2018 Google



Driver Evaluation

Accelerator Nervousness	0.00
Inefficient Ignitions	0/2

Accelerator Nervousness: Variability of the accelerator pedal usage. Higher values indicate a nervous driving style
Braking Efficiency: Ability to use regenerative braking
Inefficient Ignitions: Number of engine ignitions that lasted less than 5 seconds

Notes

Point size on scatter charts is proportional to number of samples: a small, well defined dot represent a higher confidence value than a bigger, faint dot.