

SoC Accuracy Analysis Overview

This report analyses battery State-of-Charge (SoC) accuracy across the fleet by calculating energy derived from SoC movement versus the energy estimated from voltage-current integration.

SESSION IDENTIFICATION:

- Sessions split on gun connection changes
- Data gaps greater than threshold
- Vehicle ID boundaries

For each session we compute:

- ΔSOC (start SOC - end SOC)
- $\text{Energy}_\text{SOC} = \Delta\text{SOC} \times \text{SOH} \times \text{battery_capacity} / 10000$
- $\text{Energy}_\text{measured} = \sum(\text{Voltage} \times \text{Current} \times \Delta t) / 3.6e6$
- Accuracy = $(1 - |\text{E}_\text{meas} - \text{E}_\text{soc}| / \text{E}_\text{soc}) \times 100$

STRUCTURE OF REPORT:

- Page 2 → Fleet-level weighted SoC accuracy
- Page 3 → Vehicle-level weighted SoC accuracy
- Page 4+ → Session-level details for each vehicle

Fleet-Level SoC Accuracy Summary (Weighted)

mode	weighted_avg_soc_kwh	weighted_avg_measured_kwh	difference_kwh	accuracy_percent
CHARGING	174.945	183.758	8.813	94.96
DISCHARGING	143.176	141.381	-1.795	98.75

Vehicle-Level SoC Accuracy Summary (Weighted) (Page 1/2)

vehicle_id	mode	weighted_avg_soc_kwh	weighted_avg_measured_kwh	difference_kwh	accuracy_percent
3	CHARGING	211.553	226.265	14.712	93.05
3	DISCHARGING	229.457	222.72	-6.737	97.06
6	CHARGING	187.077	198.444	11.367	93.92
6	DISCHARGING	162.125	162.169	0.044	99.97
7	CHARGING	204.353	218.051	13.698	93.3
7	DISCHARGING	168.779	167.656	-1.123	99.33
9	CHARGING	198.831	208.032	9.201	95.37
9	DISCHARGING	160.147	159.656	-0.491	99.69
11	CHARGING	191.091	202.924	11.833	93.81
11	DISCHARGING	174.068	172.135	-1.933	98.89
12	CHARGING	179.443	184.786	5.343	97.02
12	DISCHARGING	140.456	137.851	-2.605	98.15
13	CHARGING	190.107	200.237	10.13	94.67
13	DISCHARGING	168.802	168.686	-0.116	99.93
14	CHARGING	199.564	212.061	12.497	93.74
14	DISCHARGING	174.551	174.371	-0.18	99.9
15	CHARGING	199.816	209.275	9.459	95.27
15	DISCHARGING	172.813	171.917	-0.896	99.48
16	CHARGING	183.422	197.226	13.804	92.47
16	DISCHARGING	200.904	198.63	-2.274	98.87
18	CHARGING	122.434	128.501	6.067	95.04
18	DISCHARGING	54.178	49.028	-5.15	90.49
19	CHARGING	116.393	121.337	4.944	95.75
19	DISCHARGING	57.467	52.482	-4.985	91.33
20	CHARGING	130.589	138.297	7.708	94.1
20	DISCHARGING	59.656	58.993	-0.663	98.89
25	CHARGING	136.031	141.133	5.102	96.25
25	DISCHARGING	64.637	62.202	-2.435	96.23
27	CHARGING	148.542	150.684	2.142	98.56
27	DISCHARGING	83.684	81.704	-1.98	97.63

Vehicle-Level SoC Accuracy Summary (Weighted) (Page 2/2)

vehicle_id	mode	weighted_avg_soc_kwh	weighted_avg_measured_kwh	difference_kwh	accuracy_percent
28	CHARGING	120.144	122.907	2.763	97.7
28	DISCHARGING	57.471	56.435	-1.036	98.2
29	CHARGING	157.323	157.73	0.407	99.74
29	DISCHARGING	69.701	68.404	-1.297	98.14
30	CHARGING	95.55	100.848	5.298	94.46
30	DISCHARGING	25.733	18.098	-7.635	70.33
31	CHARGING	171.931	173.923	1.992	98.84
31	DISCHARGING	72.134	71.094	-1.04	98.56
32	CHARGING	63.321	66.848	3.527	94.43
32	DISCHARGING	38.777	36.664	-2.113	94.55
33	CHARGING	143.775	146.832	3.057	97.87
33	DISCHARGING	62.262	60.954	-1.308	97.9
42	CHARGING	74.413	79.172	4.759	93.6
42	DISCHARGING	25.88	24.694	-1.186	95.42
46	CHARGING	183.209	176.525	-6.684	96.35
46	DISCHARGING	23.586	18.372	-5.214	77.89

Vehicle 3 — Session SoC Accuracy (Page 1/7)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
3	5006	DISCHARGING	01-10-25 01:54:25	01-10-25 01:55:59	1.57	54.4	54.4	98.8	0.0	1.27	nan
3	5007	DISCHARGING	01-10-25 05:17:31	01-10-25 05:19:50	2.32	54.4	54.4	98.8	0.0	0.0	nan
3	5008	DISCHARGING	01-10-25 06:01:36	01-10-25 06:05:47	4.18	54.4	54.4	98.8	0.0	1.1	nan
3	5009	DISCHARGING	01-10-25 06:14:55	01-10-25 06:41:51	26.93	54.4	54.4	98.8	0.0	4.34	nan
3	5010	DISCHARGING	01-10-25 06:52:08	01-10-25 06:54:43	2.59	54.4	54.0	98.8	1.67	1.38	82.72
3	5011	DISCHARGING	01-10-25 07:11:10	01-10-25 07:14:28	3.3	54.0	54.0	98.8	0.0	2.7	nan
3	5012	DISCHARGING	01-10-25 07:25:38	01-10-25 13:48:50	383.2	54.0	39.6	98.8	60.18	53.83	89.45
3	5015	CHARGING	01-10-25 13:50:00	01-10-25 14:22:56	32.93	39.6	64.8	98.8	105.32	114.74	91.06
3	5017	CHARGING	01-10-25 14:22:58	01-10-25 14:53:37	30.64	64.8	93.2	98.8	118.69	113.16	95.34
3	5019	CHARGING	01-10-25 14:53:39	01-10-25 15:04:02	10.38	93.2	100.0	98.8	28.42	12.09	42.55
3	5022	DISCHARGING	01-10-25 15:06:42	02-10-25 01:23:16	616.58	100.0	32.4	98.8	282.52	277.78	98.32
3	5023	CHARGING	02-10-25 01:24:51	02-10-25 01:55:47	30.93	32.4	58.8	98.8	110.33	115.61	95.21
3	5025	CHARGING	02-10-25 01:55:49	02-10-25 02:27:33	31.73	58.8	80.4	98.8	90.27	116.06	71.44
3	5027	CHARGING	02-10-25 02:27:35	02-10-25 02:51:58	24.38	80.4	100.0	98.8	81.91	70.68	86.29
3	5028	DISCHARGING	02-10-25 02:51:59	02-10-25 11:18:54	506.9	100.0	38.0	98.8	259.11	260.6	99.43
3	5032	CHARGING	02-10-25 11:29:17	02-10-25 12:01:29	32.2	38.0	63.6	98.8	106.99	113.23	94.16
3	5034	CHARGING	02-10-25 12:01:32	02-10-25 12:30:37	29.1	63.6	85.2	98.8	90.27	114.58	73.07
3	5038	CHARGING	02-10-25 12:34:15	02-10-25 12:56:48	22.55	85.2	100.0	98.8	61.85	48.6	78.57
3	5039	DISCHARGING	02-10-25 12:56:51	03-10-25 00:42:26	705.58	100.0	31.2	98.8	287.53	279.27	97.13
3	5040	CHARGING	03-10-25 00:42:27	03-10-25 01:19:29	37.04	31.2	57.2	98.8	108.66	116.31	92.96
3	5042	CHARGING	03-10-25 01:19:31	03-10-25 01:51:25	31.9	57.2	80.0	98.8	95.29	116.48	77.76
3	5044	CHARGING	03-10-25 01:51:27	03-10-25 01:51:53	0.43	80.0	80.0	98.8	0.0	0.02	nan
3	5045	DISCHARGING	03-10-25 01:51:54	03-10-25 01:52:19	0.41	80.0	80.0	98.8	0.0	1.94	nan
3	5046	CHARGING	03-10-25 01:52:20	03-10-25 02:20:09	27.81	80.0	100.0	98.8	83.58	75.05	89.79
3	5047	CHARGING	03-10-25 02:52:53	03-10-25 02:52:59	0.09	100.0	100.0	98.8	0.0	0.0	nan
3	5048	DISCHARGING	03-10-25 02:53:00	03-10-25 12:06:10	553.16	100.0	34.0	98.8	275.83	272.86	98.92
3	5050	CHARGING	03-10-25 12:22:51	03-10-25 12:53:18	30.45	34.0	60.0	98.8	108.66	117.29	92.06
3	5052	CHARGING	03-10-25 12:53:20	03-10-25 13:26:03	32.71	60.0	81.6	98.8	90.27	112.51	75.36
3	5056	CHARGING	03-10-25 13:27:22	03-10-25 13:51:22	24.0	81.6	100.0	98.8	76.9	66.09	85.94
3	5061	DISCHARGING	03-10-25 13:51:57	03-10-25 14:45:46	53.81	100.0	98.8	98.8	5.01	0.76	15.24

Vehicle 3 — Session SoC Accuracy (Page 2/7)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
3	5062	DISCHARGING	03-10-25 15:21:14	04-10-25 01:39:33	618.33	98.8	32.0	98.8	279.17	271.28	97.17
3	5063	CHARGING	04-10-25 01:39:34	04-10-25 02:11:12	31.62	32.0	58.4	98.8	110.33	118.21	92.86
3	5067	CHARGING	04-10-25 02:13:25	04-10-25 02:47:59	34.56	58.4	81.2	98.8	95.29	116.54	77.7
3	5069	CHARGING	04-10-25 02:48:30	04-10-25 03:05:07	16.63	81.2	97.2	98.8	66.87	57.84	86.5
3	5070	DISCHARGING	04-10-25 03:05:09	04-10-25 12:59:15	594.11	97.2	30.4	98.8	279.17	276.72	99.12
3	5071	CHARGING	04-10-25 12:59:16	04-10-25 13:32:01	32.75	30.4	56.0	98.8	106.99	113.8	93.63
3	5073	CHARGING	04-10-25 13:32:06	04-10-25 14:04:58	32.86	56.0	79.6	98.8	98.63	116.36	82.02
3	5075	CHARGING	04-10-25 14:05:10	04-10-25 14:31:56	26.77	79.6	100.0	98.8	85.26	79.53	93.28
3	5076	DISCHARGING	04-10-25 14:31:58	05-10-25 01:21:26	649.47	100.0	32.0	98.8	284.19	277.35	97.59
3	5077	CHARGING	05-10-25 01:21:27	05-10-25 02:01:03	39.6	32.0	60.4	98.8	118.69	123.98	95.54
3	5079	CHARGING	05-10-25 02:03:15	05-10-25 03:01:44	58.48	60.4	100.0	98.8	165.5	177.12	92.98
3	5080	DISCHARGING	05-10-25 03:01:45	05-10-25 12:59:58	598.2	100.0	34.0	98.8	275.83	270.6	98.1
3	5081	CHARGING	05-10-25 12:59:59	05-10-25 13:49:34	49.59	34.0	71.6	98.8	157.14	167.59	93.35
3	5083	CHARGING	05-10-25 13:49:37	05-10-25 14:33:48	44.19	71.6	100.0	98.8	118.69	125.94	93.89
3	5084	DISCHARGING	05-10-25 14:33:49	06-10-25 00:15:37	581.8	100.0	39.2	98.8	254.1	251.75	99.08
3	5085	CHARGING	06-10-25 00:15:38	06-10-25 00:46:26	30.79	39.2	65.2	98.8	108.66	116.23	93.03
3	5087	CHARGING	06-10-25 00:46:56	06-10-25 02:09:01	82.08	65.2	100.0	98.8	145.44	155.4	93.15
3	5089	DISCHARGING	06-10-25 02:22:26	06-10-25 06:40:59	258.55	100.0	73.6	98.8	110.33	107.34	97.29
3	5090	DISCHARGING	06-10-25 07:10:10	06-10-25 12:32:27	322.28	73.6	42.0	98.8	132.06	133.37	99.01
3	5092	CHARGING	06-10-25 12:44:19	06-10-25 13:30:28	46.15	42.0	79.6	98.8	157.14	170.21	91.68
3	5094	CHARGING	06-10-25 13:30:30	06-10-25 14:05:30	35.0	79.6	100.0	98.8	85.26	92.61	91.38
3	5097	DISCHARGING	06-10-25 14:08:29	07-10-25 00:30:11	621.69	100.0	40.8	98.8	247.41	238.72	96.49
3	5098	CHARGING	07-10-25 00:31:08	07-10-25 01:02:47	31.66	40.8	67.2	98.8	110.33	116.64	94.28
3	5100	CHARGING	07-10-25 01:02:49	07-10-25 01:52:00	49.18	67.2	100.0	98.8	137.08	145.44	93.9
3	5103	DISCHARGING	07-10-25 02:50:51	07-10-25 06:16:06	205.25	100.0	76.0	98.8	100.3	97.14	96.85
3	5104	DISCHARGING	07-10-25 06:50:01	07-10-25 11:22:39	272.63	76.0	46.8	98.8	122.03	118.53	97.13
3	5111	DISCHARGING	08-10-25 07:26:45	08-10-25 09:04:19	97.56	45.2	43.2	98.8	8.36	2.86	34.28
3	5112	CHARGING	08-10-25 09:04:22	08-10-25 09:13:31	9.15	43.2	46.0	98.8	11.7	10.76	91.91
3	5114	CHARGING	08-10-25 09:13:34	08-10-25 09:48:00	34.43	46.0	50.4	98.8	18.39	19.41	94.42
3	5115	DISCHARGING	08-10-25 09:48:01	08-10-25 10:00:37	12.62	50.4	50.0	98.8	1.67	0.71	42.33

Vehicle 3 — Session SoC Accuracy (Page 3/7)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
3	5116	DISCHARGING	08-10-25 10:46:26	08-10-25 11:59:27	73.02	50.0	48.8	98.8	5.01	0.69	13.8
3	5119	CHARGING	08-10-25 12:00:56	08-10-25 12:43:16	42.34	48.8	84.4	98.8	148.78	169.06	86.37
3	5121	CHARGING	08-10-25 12:44:04	08-10-25 12:59:00	14.92	84.4	89.6	98.8	21.73	27.84	71.88
3	5131	CHARGING	08-10-25 13:10:16	08-10-25 13:26:21	16.09	89.6	100.0	98.8	43.46	31.04	71.42
3	5132	DISCHARGING	08-10-25 13:26:22	08-10-25 13:26:23	0.01	100.0	100.0	98.8	0.0	0.0	nan
3	5134	DISCHARGING	08-10-25 13:27:55	09-10-25 00:22:17	654.37	100.0	42.0	98.8	242.4	240.46	99.2
3	5135	CHARGING	09-10-25 00:22:18	09-10-25 01:29:29	67.18	42.0	86.8	98.8	187.23	233.52	75.28
3	5137	CHARGING	09-10-25 01:29:31	09-10-25 01:46:13	16.7	86.8	100.0	98.8	55.17	27.61	50.06
3	5138	DISCHARGING	09-10-25 01:46:14	09-10-25 12:12:02	625.79	100.0	42.8	98.6	238.57	232.38	97.41
3	5140	CHARGING	09-10-25 12:36:16	09-10-25 13:46:14	69.96	42.8	100.0	98.4	238.08	255.01	92.89
3	5143	DISCHARGING	09-10-25 14:29:07	10-10-25 00:57:29	628.36	99.6	40.4	98.4	246.41	242.69	98.49
3	5144	CHARGING	10-10-25 00:57:30	10-10-25 01:00:05	2.58	40.4	41.2	98.4	3.33	4.23	73.0
3	5145	DISCHARGING	10-10-25 01:00:06	10-10-25 01:00:55	0.81	41.2	41.2	98.4	0.0	2.05	nan
3	5146	CHARGING	10-10-25 01:00:56	10-10-25 02:15:04	74.15	41.2	100.0	98.4	244.74	260.23	93.67
3	5147	DISCHARGING	10-10-25 02:15:05	10-10-25 12:24:59	609.9	100.0	36.8	98.4	263.06	256.73	97.59
3	5148	CHARGING	10-10-25 12:25:00	10-10-25 13:51:20	86.34	36.8	100.0	98.4	263.06	280.65	93.31
3	5149	DISCHARGING	10-10-25 13:51:21	10-10-25 14:45:20	53.98	100.0	98.8	98.4	5.0	0.8	16.0
3	5150	DISCHARGING	10-10-25 15:15:06	11-10-25 00:29:35	554.5	98.8	38.0	98.4	253.07	250.1	98.83
3	5151	CHARGING	11-10-25 00:29:36	11-10-25 01:40:59	71.37	38.0	94.4	98.4	234.76	266.67	86.41
3	5153	CHARGING	11-10-25 01:41:52	11-10-25 01:50:25	8.56	94.4	100.0	98.4	23.31	9.21	39.51
3	5154	DISCHARGING	11-10-25 01:50:26	11-10-25 12:58:53	668.45	100.0	32.0	98.4	283.04	276.68	97.75
3	5155	CHARGING	11-10-25 12:58:54	11-10-25 14:22:37	83.72	32.0	100.0	98.4	283.04	300.96	93.67
3	5157	DISCHARGING	11-10-25 14:39:44	12-10-25 00:53:49	614.09	100.0	37.2	98.4	261.39	252.88	96.74
3	5160	CHARGING	12-10-25 00:55:08	12-10-25 01:36:03	40.92	37.2	64.4	98.4	113.22	118.69	95.17
3	5162	CHARGING	12-10-25 01:37:15	12-10-25 02:25:26	48.17	64.4	100.0	98.4	148.18	159.84	92.13
3	5163	DISCHARGING	12-10-25 02:25:27	12-10-25 12:26:13	600.76	100.0	33.2	98.4	278.04	271.09	97.5
3	5164	CHARGING	12-10-25 12:26:14	12-10-25 13:44:22	78.14	33.2	100.0	98.4	278.04	296.42	93.39
3	5165	DISCHARGING	12-10-25 13:44:23	13-10-25 00:36:47	652.4	100.0	38.8	98.4	254.73	237.89	93.39
3	5166	CHARGING	13-10-25 00:36:48	13-10-25 01:54:28	77.67	38.8	100.0	98.4	254.73	272.19	93.15
3	5167	DISCHARGING	13-10-25 01:54:29	13-10-25 02:05:32	11.05	100.0	100.0	98.4	0.0	0.36	nan

Vehicle 3 — Session SoC Accuracy (Page 4/7)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
3	5168	DISCHARGING	13-10-25 02:48:11	13-10-25 12:46:57	598.77	100.0	36.4	98.4	264.72	257.53	97.28
3	5169	CHARGING	13-10-25 12:46:58	13-10-25 14:02:08	75.17	36.4	100.0	98.4	264.72	284.18	92.65
3	5170	DISCHARGING	13-10-25 14:02:09	14-10-25 00:33:21	631.2	100.0	41.2	98.4	244.74	238.91	97.62
3	5171	CHARGING	14-10-25 00:34:53	14-10-25 01:50:48	75.93	41.2	100.0	98.4	244.74	259.89	93.81
3	5173	DISCHARGING	14-10-25 02:18:14	14-10-25 13:06:56	648.71	100.0	38.0	98.4	258.06	253.04	98.05
3	5176	CHARGING	14-10-25 13:08:09	14-10-25 14:18:49	70.65	38.0	100.0	98.4	258.06	276.2	92.97
3	5179	DISCHARGING	14-10-25 14:20:03	14-10-25 14:30:34	10.52	100.0	99.6	98.4	1.66	0.45	26.83
3	5180	DISCHARGING	14-10-25 14:59:23	15-10-25 00:27:48	568.42	99.6	42.4	98.4	238.08	231.07	97.05
3	5181	CHARGING	15-10-25 00:29:01	15-10-25 01:40:48	71.79	42.4	100.0	98.4	239.75	256.41	93.05
3	5182	DISCHARGING	15-10-25 01:40:50	15-10-25 13:06:24	685.58	100.0	39.2	98.4	253.07	240.97	95.22
3	5183	CHARGING	15-10-25 13:07:19	15-10-25 14:19:58	72.65	39.2	100.0	98.4	253.07	271.38	92.77
3	5186	DISCHARGING	15-10-25 14:20:12	16-10-25 00:43:04	622.86	100.0	42.8	98.4	238.08	228.75	96.08
3	5187	CHARGING	16-10-25 00:44:01	16-10-25 01:58:29	74.48	42.8	100.0	98.4	238.08	255.47	92.7
3	5190	DISCHARGING	16-10-25 02:35:47	16-10-25 13:16:15	640.47	100.0	42.0	98.4	241.42	233.47	96.71
3	5191	CHARGING	16-10-25 13:16:52	16-10-25 14:27:10	70.3	42.0	100.0	98.4	241.42	256.81	93.62
3	5192	DISCHARGING	16-10-25 14:27:11	16-10-25 15:11:04	43.89	100.0	99.2	98.4	3.33	0.04	1.28
3	5193	DISCHARGING	16-10-25 15:16:37	17-10-25 00:43:06	566.48	99.2	42.4	98.4	236.42	237.4	99.58
3	5194	CHARGING	17-10-25 00:44:28	17-10-25 02:02:18	77.83	42.4	100.0	98.4	239.75	257.91	92.42
3	5196	DISCHARGING	17-10-25 02:30:06	17-10-25 13:56:53	686.77	100.0	37.6	98.4	259.73	252.63	97.27
3	5198	CHARGING	17-10-25 14:11:50	17-10-25 15:23:56	72.11	37.6	100.0	98.4	259.73	275.56	93.9
3	5200	DISCHARGING	17-10-25 15:31:45	18-10-25 02:20:10	648.41	100.0	34.4	98.4	273.05	261.9	95.92
3	5201	CHARGING	18-10-25 02:20:45	18-10-25 03:32:04	71.32	34.4	88.8	98.4	226.43	267.52	81.85
3	5202	DISCHARGING	18-10-25 03:32:06	18-10-25 13:45:19	613.22	88.8	26.0	98.4	261.39	251.33	96.15
3	5204	CHARGING	18-10-25 13:57:26	18-10-25 15:16:32	79.1	26.0	100.0	98.4	308.01	302.57	98.23
3	5205	DISCHARGING	18-10-25 15:16:33	18-10-25 15:17:27	0.9	100.0	100.0	98.4	0.0	0.0	nan
3	5206	DISCHARGING	18-10-25 15:25:37	19-10-25 01:38:13	612.6	100.0	32.4	98.4	281.37	273.05	97.04
3	5207	CHARGING	19-10-25 01:38:35	19-10-25 03:04:01	85.43	32.4	100.0	98.4	281.37	298.9	93.77
3	5208	DISCHARGING	19-10-25 03:04:02	19-10-25 11:46:13	522.19	100.0	38.8	98.4	254.73	251.62	98.78
3	5209	CHARGING	19-10-25 11:47:00	19-10-25 13:00:35	73.59	38.8	100.0	98.4	254.73	272.47	93.04
3	5210	DISCHARGING	19-10-25 13:00:36	20-10-25 02:44:30	823.9	100.0	34.0	98.4	274.71	259.06	94.3

Vehicle 3 — Session SoC Accuracy (Page 5/7)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
3	5213	DISCHARGING	20-10-25 07:06:27	20-10-25 12:22:26	315.99	34.0	27.6	98.4	26.64	6.2	23.27
3	5214	DISCHARGING	20-10-25 16:52:52	21-10-25 00:20:22	447.51	27.6	23.6	98.4	16.65	0.56	3.38
3	5215	CHARGING	21-10-25 01:20:22	21-10-25 02:53:06	92.74	23.6	100.0	98.4	318.0	324.38	98.0
3	5218	DISCHARGING	21-10-25 02:53:28	21-10-25 11:49:17	535.81	100.0	38.0	98.4	258.06	254.25	98.52
3	5219	CHARGING	21-10-25 11:52:10	21-10-25 13:05:19	73.15	38.0	100.0	98.4	258.06	274.38	93.68
3	5221	DISCHARGING	21-10-25 13:10:39	21-10-25 14:13:56	63.29	100.0	98.8	98.4	5.0	1.97	39.45
3	5222	DISCHARGING	21-10-25 14:27:02	22-10-25 00:32:21	605.32	98.8	32.0	98.4	278.04	268.64	96.62
3	5223	CHARGING	22-10-25 00:33:59	22-10-25 02:21:47	107.8	32.0	100.0	98.4	283.04	299.29	94.26
3	5225	DISCHARGING	22-10-25 02:51:46	22-10-25 12:33:40	581.89	100.0	30.0	98.4	291.36	279.1	95.79
3	5226	CHARGING	22-10-25 12:34:27	22-10-25 13:54:38	80.18	30.0	100.0	98.4	291.36	306.99	94.64
3	5227	DISCHARGING	22-10-25 13:54:40	23-10-25 00:33:32	638.85	100.0	30.8	98.4	288.03	274.39	95.26
3	5230	CHARGING	23-10-25 00:38:31	23-10-25 01:48:23	69.87	30.8	86.0	98.4	229.76	265.11	84.62
3	5232	CHARGING	23-10-25 01:49:16	23-10-25 02:06:52	17.6	86.0	100.0	98.4	58.27	40.94	70.26
3	5235	DISCHARGING	23-10-25 02:11:11	23-10-25 12:03:26	592.25	100.0	31.6	98.4	284.7	286.58	99.34
3	5237	CHARGING	23-10-25 12:33:08	23-10-25 13:54:33	81.41	31.6	100.0	98.4	284.7	302.3	93.82
3	5239	DISCHARGING	23-10-25 14:01:58	23-10-25 15:40:10	98.21	100.0	98.8	98.4	5.0	0.1	1.92
3	5240	DISCHARGING	23-10-25 17:00:52	23-10-25 17:02:58	2.09	98.8	98.8	98.4	0.0	2.79	nan
3	5241	DISCHARGING	23-10-25 22:41:29	24-10-25 02:20:24	218.92	98.8	90.8	98.4	33.3	31.93	95.89
3	5243	DISCHARGING	24-10-25 04:14:25	24-10-25 04:24:48	10.38	90.8	90.8	98.4	0.0	0.86	nan
3	5244	DISCHARGING	24-10-25 04:33:12	24-10-25 04:33:50	0.63	90.8	90.8	98.4	0.0	2.06	nan
3	5245	DISCHARGING	24-10-25 04:47:32	24-10-25 04:48:55	1.39	90.8	90.8	98.4	0.0	0.04	nan
3	5246	DISCHARGING	24-10-25 05:02:11	24-10-25 05:14:27	12.27	90.8	90.8	98.4	0.0	0.01	nan
3	5250	DISCHARGING	24-10-25 11:13:02	24-10-25 11:55:58	42.93	90.4	90.4	98.4	0.0	0.06	nan
3	5251	DISCHARGING	24-10-25 12:13:05	24-10-25 21:44:33	571.45	90.4	46.0	98.36	184.74	170.57	92.33
3	5253	CHARGING	24-10-25 21:50:43	24-10-25 22:24:05	33.37	46.0	56.4	98.0	43.11	45.41	94.66
3	5254	DISCHARGING	24-10-25 22:24:07	25-10-25 00:53:49	149.7	56.4	24.8	98.0	131.0	119.71	91.38
3	5255	CHARGING	25-10-25 00:58:20	25-10-25 02:43:59	105.66	24.8	100.0	98.0	311.73	319.02	97.66
3	5256	DISCHARGING	25-10-25 02:44:00	25-10-25 11:54:52	550.87	100.0	35.6	98.0	266.96	254.37	95.28
3	5258	CHARGING	25-10-25 12:20:16	25-10-25 13:36:39	76.38	35.6	100.0	98.0	266.96	283.95	93.64
3	5260	DISCHARGING	25-10-25 13:49:01	26-10-25 00:47:42	658.69	100.0	36.8	98.0	261.99	264.07	99.21

Vehicle 3 — Session SoC Accuracy (Page 6/7)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
3	5261	CHARGING	26-10-25 00:49:05	26-10-25 02:55:26	126.35	36.8	100.0	98.0	261.99	281.24	92.65
3	5262	DISCHARGING	26-10-25 02:55:27	26-10-25 12:05:18	549.85	100.0	34.4	98.0	271.94	272.02	99.97
3	5265	DISCHARGING	26-10-25 12:36:00	26-10-25 12:47:34	11.56	34.4	34.4	98.0	0.0	0.12	nan
3	5266	CHARGING	26-10-25 12:47:37	26-10-25 14:10:41	83.06	34.4	100.0	98.0	271.94	288.82	93.79
3	5267	DISCHARGING	26-10-25 14:10:42	27-10-25 00:46:03	635.36	100.0	33.6	98.0	275.26	267.62	97.23
3	5268	CHARGING	27-10-25 00:46:04	27-10-25 01:55:40	69.59	33.6	91.2	98.0	238.78	269.16	87.27
3	5270	CHARGING	27-10-25 01:55:42	27-10-25 02:44:03	48.35	91.2	100.0	98.0	36.48	23.29	63.83
3	5271	DISCHARGING	27-10-25 02:44:04	27-10-25 06:36:05	232.02	100.0	70.8	98.0	121.05	116.88	96.56
3	5272	DISCHARGING	27-10-25 07:12:19	27-10-25 11:48:03	275.74	70.8	36.8	98.0	140.94	136.15	96.6
3	5273	DISCHARGING	27-10-25 12:03:45	27-10-25 12:21:43	17.97	36.8	36.8	98.0	0.0	0.0	nan
3	5274	CHARGING	27-10-25 12:21:44	27-10-25 13:37:54	76.16	36.8	100.0	98.0	261.99	280.86	92.8
3	5276	DISCHARGING	27-10-25 14:15:43	28-10-25 00:34:44	619.01	99.6	33.6	98.0	273.6	268.69	98.21
3	5277	CHARGING	28-10-25 00:36:18	28-10-25 02:03:58	87.66	33.6	100.0	98.0	275.26	292.22	93.84
3	5278	DISCHARGING	28-10-25 02:03:59	28-10-25 02:18:38	14.65	100.0	100.0	98.0	0.0	0.12	nan
3	5279	DISCHARGING	28-10-25 02:49:15	28-10-25 06:30:11	220.93	100.0	72.4	98.0	114.41	114.22	99.83
3	5280	DISCHARGING	28-10-25 07:04:14	28-10-25 12:06:31	302.29	72.4	40.0	98.0	134.31	128.14	95.41
3	5281	DISCHARGING	28-10-25 12:16:09	28-10-25 12:16:59	0.83	40.0	40.0	98.0	0.0	0.0	nan
3	5282	CHARGING	28-10-25 12:17:00	28-10-25 12:21:46	4.78	40.0	40.8	98.0	3.32	2.65	79.95
3	5285	DISCHARGING	28-10-25 12:31:14	28-10-25 12:34:24	3.16	40.8	40.8	98.0	0.0	0.04	nan
3	5286	CHARGING	28-10-25 12:34:25	28-10-25 13:46:02	71.62	40.8	100.0	98.0	245.41	264.16	92.36
3	5287	DISCHARGING	28-10-25 13:46:03	29-10-25 00:59:16	673.22	100.0	36.4	98.0	263.65	253.83	96.28
3	5290	CHARGING	29-10-25 01:00:46	29-10-25 02:34:40	93.9	36.4	100.0	98.0	263.65	280.95	93.44
3	5292	DISCHARGING	29-10-25 02:58:52	29-10-25 06:42:15	223.38	100.0	72.0	98.0	116.07	114.51	98.65
3	5293	DISCHARGING	29-10-25 07:11:54	29-10-25 12:03:55	292.02	72.0	37.2	98.0	144.26	136.88	94.88
3	5295	CHARGING	29-10-25 12:18:05	29-10-25 13:35:41	77.59	37.2	100.0	98.0	260.33	277.34	93.47
3	5296	DISCHARGING	29-10-25 13:35:44	29-10-25 14:10:26	34.71	100.0	100.0	98.0	0.0	0.42	nan
3	5297	DISCHARGING	29-10-25 14:24:13	30-10-25 00:54:54	630.69	100.0	39.2	98.0	252.04	237.94	94.4
3	5004	DISCHARGING	30-09-25 18:30:01	30-09-25 18:37:04	7.05	57.6	57.6	98.8	0.0	1.28	nan
3	5005	DISCHARGING	30-09-25 19:12:52	01-10-25 01:29:26	376.57	57.6	54.4	98.8	13.37	1.84	13.78
3	5298	CHARGING	30-10-25 00:55:42	30-10-25 02:08:51	73.15	39.2	94.8	98.0	230.48	266.62	84.32

Vehicle 3 — Session SoC Accuracy (Page 7/7)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
3	5300	CHARGING	30-10-25 02:09:32	30-10-25 02:13:37	4.09	94.8	100.0	98.0	21.56	2.73	12.67
3	5301	DISCHARGING	30-10-25 02:13:38	30-10-25 06:47:17	273.65	100.0	71.2	98.0	119.39	114.36	95.79
3	5302	DISCHARGING	30-10-25 07:16:42	30-10-25 12:02:53	286.19	71.2	39.6	98.0	131.0	125.83	96.06
3	5304	CHARGING	30-10-25 12:16:27	30-10-25 12:21:13	4.76	39.6	40.4	98.0	3.32	2.61	78.57
3	5307	DISCHARGING	30-10-25 12:30:49	30-10-25 12:36:48	5.97	40.4	40.0	98.0	1.66	0.3	18.21
3	5308	CHARGING	30-10-25 12:36:49	30-10-25 13:47:50	71.02	40.0	100.0	98.0	248.72	265.04	93.44
3	5310	DISCHARGING	30-10-25 14:49:37	31-10-25 00:59:55	610.3	99.6	40.8	98.0	243.75	242.18	99.36
3	5311	CHARGING	31-10-25 00:59:56	31-10-25 01:12:24	12.46	40.8	45.2	98.0	18.24	20.04	90.16
3	5312	DISCHARGING	31-10-25 01:12:25	31-10-25 01:15:56	3.51	45.2	45.2	98.0	0.0	0.29	nan
3	5313	CHARGING	31-10-25 01:16:52	31-10-25 02:25:45	68.89	45.2	100.0	98.0	227.17	242.89	93.08
3	5314	DISCHARGING	31-10-25 02:25:47	31-10-25 06:40:06	254.32	100.0	73.2	98.0	111.1	107.68	96.93
3	5315	DISCHARGING	31-10-25 07:19:26	31-10-25 12:31:30	312.07	73.2	41.2	98.0	132.65	129.03	97.27
3	5316	CHARGING	31-10-25 12:31:31	31-10-25 13:42:15	70.72	41.2	100.0	98.0	243.75	259.63	93.49
3	5318	DISCHARGING	31-10-25 15:22:26	31-10-25 18:29:57	187.5	100.0	90.8	98.0	38.14	31.43	82.41

Vehicle 6 — Session SoC Accuracy (Page 1/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
6	6466	CHARGING	01-10-25 01:45:56	01-10-25 03:29:42	103.78	43.2	100.0	98.4	236.42	247.08	95.49
6	6467	DISCHARGING	01-10-25 03:38:50	01-10-25 03:41:32	2.69	100.0	99.6	98.4	1.66	0.06	3.85
6	6469	DISCHARGING	01-10-25 04:16:44	01-10-25 08:16:35	239.85	99.6	65.6	98.4	141.52	143.59	98.54
6	6470	CHARGING	01-10-25 08:16:57	01-10-25 08:37:16	20.31	65.6	80.0	98.4	59.94	66.18	89.58
6	6472	DISCHARGING	01-10-25 08:44:16	01-10-25 12:54:30	250.23	80.0	42.0	98.03	157.57	154.06	97.77
6	6473	CHARGING	01-10-25 12:54:31	01-10-25 15:31:21	156.83	42.0	100.0	98.0	240.43	256.54	93.3
6	6474	DISCHARGING	01-10-25 15:31:22	01-10-25 20:04:58	273.6	100.0	85.6	98.0	59.69	50.71	84.95
6	6475	DISCHARGING	01-10-25 20:21:30	02-10-25 03:37:39	436.15	84.8	40.8	98.0	182.4	179.41	98.36
6	6476	CHARGING	02-10-25 03:37:40	02-10-25 05:11:21	93.67	40.8	86.0	98.0	187.37	218.08	83.61
6	6478	CHARGING	02-10-25 05:11:30	02-10-25 05:36:05	24.6	86.0	100.0	98.0	58.04	41.89	72.18
6	6479	DISCHARGING	02-10-25 05:36:07	02-10-25 07:18:37	102.5	100.0	92.8	98.0	29.85	25.3	84.76
6	6480	DISCHARGING	02-10-25 07:24:11	02-10-25 10:03:43	159.52	92.4	61.2	98.0	129.34	134.56	95.96
6	6481	CHARGING	02-10-25 10:03:44	02-10-25 10:34:32	30.79	61.2	79.6	98.0	76.28	94.58	76.0
6	6482	DISCHARGING	02-10-25 10:34:33	02-10-25 14:48:11	253.63	79.6	44.4	98.0	145.92	149.74	97.38
6	6483	CHARGING	02-10-25 14:48:12	02-10-25 16:09:03	80.86	44.4	100.0	98.0	230.48	232.95	98.93
6	6484	DISCHARGING	02-10-25 16:09:04	03-10-25 02:39:41	630.6	100.0	50.0	98.0	207.27	209.27	99.03
6	6485	CHARGING	03-10-25 02:39:42	03-10-25 03:55:32	75.84	50.0	100.0	98.0	207.27	224.13	91.86
6	6488	DISCHARGING	03-10-25 04:13:25	03-10-25 08:10:32	237.11	100.0	61.2	98.0	160.84	163.5	98.34
6	6489	CHARGING	03-10-25 08:10:35	03-10-25 08:37:05	26.51	61.2	80.0	98.0	77.93	84.7	91.32
6	6490	DISCHARGING	03-10-25 08:38:42	03-10-25 12:46:24	247.71	80.0	40.8	98.0	162.5	167.96	96.64
6	6491	CHARGING	03-10-25 12:46:25	03-10-25 14:16:57	90.52	40.8	100.0	98.0	245.41	260.56	93.83
6	6493	DISCHARGING	03-10-25 15:02:11	04-10-25 01:25:30	623.31	99.6	42.4	98.0	237.12	234.77	99.01
6	6494	CHARGING	04-10-25 01:26:06	04-10-25 02:54:00	87.89	42.4	100.0	98.0	238.78	251.42	94.71
6	6497	DISCHARGING	04-10-25 03:00:28	04-10-25 07:27:59	267.53	100.0	63.6	98.0	150.89	151.69	99.47
6	6498	CHARGING	04-10-25 07:28:26	04-10-25 07:53:13	24.78	63.6	80.0	98.0	67.98	78.57	84.43
6	6499	DISCHARGING	04-10-25 07:53:14	04-10-25 12:00:52	247.64	80.0	41.6	98.0	159.18	166.11	95.65
6	6500	CHARGING	04-10-25 12:01:24	04-10-25 13:14:00	72.6	41.6	100.0	98.0	242.09	251.17	96.25
6	6502	DISCHARGING	04-10-25 14:03:49	04-10-25 14:24:07	20.3	100.0	99.6	98.0	1.66	0.67	40.31
6	6503	DISCHARGING	04-10-25 14:33:41	04-10-25 15:01:38	27.96	99.6	99.2	98.0	1.66	0.85	51.46
6	6504	DISCHARGING	04-10-25 15:14:01	05-10-25 02:12:24	658.38	99.2	48.4	98.0	210.59	207.61	98.58

Vehicle 6 — Session SoC Accuracy (Page 2/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
6	6505	DISCHARGING	05-10-25 02:41:33	05-10-25 03:41:36	60.05	48.4	46.4	98.0	8.29	5.5	66.31
6	6506	DISCHARGING	05-10-25 03:52:31	05-10-25 08:27:05	274.57	46.4	40.0	98.0	26.53	22.87	86.21
6	6507	DISCHARGING	05-10-25 10:45:59	05-10-25 10:54:16	8.29	40.0	39.6	98.0	1.66	4.24	-55.9
6	6508	CHARGING	05-10-25 10:58:51	05-10-25 11:24:02	25.18	39.6	61.2	98.0	89.54	94.0	95.02
6	6512	DISCHARGING	05-10-25 13:42:28	05-10-25 14:34:52	52.39	61.2	58.4	98.0	11.61	10.58	91.19
6	6513	CHARGING	05-10-25 14:35:24	05-10-25 14:54:11	18.77	58.4	68.8	98.0	43.11	50.54	82.78
6	6514	DISCHARGING	05-10-25 14:54:12	05-10-25 15:23:22	29.18	68.8	65.6	98.0	13.26	10.42	78.52
6	6515	CHARGING	05-10-25 15:23:23	05-10-25 15:48:24	25.01	65.6	80.0	98.0	59.69	77.45	70.25
6	6516	DISCHARGING	05-10-25 15:48:25	05-10-25 16:56:31	68.09	80.0	76.4	98.0	14.92	10.59	70.94
6	6517	DISCHARGING	05-10-25 17:02:03	05-10-25 18:29:49	87.76	76.4	72.4	98.0	16.58	14.58	87.92
6	6518	DISCHARGING	06-10-25 05:06:05	06-10-25 06:19:44	73.64	72.4	71.6	98.0	3.32	0.93	28.13
6	6519	DISCHARGING	06-10-25 06:57:34	06-10-25 08:54:10	116.6	71.6	68.4	98.0	13.26	11.23	84.67
6	6520	CHARGING	06-10-25 08:54:14	06-10-25 09:44:48	50.57	68.4	100.0	98.0	131.0	119.58	91.29
6	6521	DISCHARGING	06-10-25 09:44:50	06-10-25 12:10:37	145.78	100.0	77.2	98.0	94.52	95.32	99.15
6	6522	CHARGING	06-10-25 12:10:38	06-10-25 13:33:11	82.56	77.2	100.0	98.0	94.52	103.18	90.84
6	6526	DISCHARGING	06-10-25 13:42:06	06-10-25 19:22:03	339.94	100.0	59.6	98.0	167.47	167.46	99.99
6	6529	CHARGING	06-10-25 19:23:48	06-10-25 19:24:38	0.85	59.6	59.6	98.0	0.0	2.31	nan
6	6531	CHARGING	06-10-25 19:24:41	06-10-25 19:52:49	28.13	59.6	80.0	98.0	84.57	90.17	93.38
6	6532	DISCHARGING	06-10-25 19:52:50	06-10-25 23:51:12	238.38	80.0	48.4	98.0	131.0	133.54	98.06
6	6533	CHARGING	06-10-25 23:51:14	07-10-25 01:30:44	99.49	48.4	100.0	98.0	213.9	229.17	92.86
6	6534	DISCHARGING	07-10-25 01:30:46	07-10-25 01:50:02	19.26	100.0	100.0	98.0	0.0	1.4	nan
6	6535	DISCHARGING	07-10-25 01:57:55	07-10-25 02:00:29	2.57	100.0	99.6	98.0	1.66	4.45	-68.26
6	6536	DISCHARGING	07-10-25 02:17:26	07-10-25 09:19:40	422.23	99.6	62.0	98.0	155.87	159.86	97.44
6	6537	CHARGING	07-10-25 09:19:43	07-10-25 09:45:13	25.5	62.0	79.6	98.0	72.96	76.96	94.51
6	6538	DISCHARGING	07-10-25 09:45:14	07-10-25 13:18:34	213.33	79.6	49.6	98.0	124.36	128.86	96.38
6	6539	CHARGING	07-10-25 13:18:35	07-10-25 14:25:21	66.76	49.6	100.0	98.0	208.93	223.8	92.88
6	6543	DISCHARGING	07-10-25 14:54:31	07-10-25 20:13:52	319.36	100.0	59.6	98.0	167.47	166.74	99.56
6	6544	CHARGING	07-10-25 20:13:53	07-10-25 20:43:31	29.64	59.6	80.0	98.0	84.57	91.35	91.98
6	6547	DISCHARGING	07-10-25 20:43:46	08-10-25 00:49:36	245.84	80.0	45.6	98.0	142.6	142.93	99.77
6	6548	CHARGING	08-10-25 00:55:42	08-10-25 00:59:31	3.83	45.6	45.6	98.0	0.0	0.23	nan

Vehicle 6 — Session SoC Accuracy (Page 3/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
6	6550	CHARGING	08-10-25 00:59:39	08-10-25 02:22:41	83.03	45.6	100.0	98.0	225.51	242.24	92.58
6	6554	DISCHARGING	08-10-25 07:08:53	08-10-25 07:26:58	18.09	99.6	98.8	98.0	3.32	3.0	90.48
6	6556	DISCHARGING	08-10-25 11:50:44	08-10-25 11:55:40	4.94	98.8	98.8	98.0	0.0	0.12	nan
6	6557	DISCHARGING	08-10-25 14:11:31	09-10-25 00:07:22	595.85	98.8	52.0	98.0	194.0	198.21	97.83
6	6558	CHARGING	09-10-25 00:07:23	09-10-25 01:24:56	77.55	52.0	100.0	98.0	198.98	217.41	90.74
6	6559	DISCHARGING	09-10-25 01:24:57	09-10-25 02:50:12	85.25	100.0	100.0	98.0	0.0	0.88	nan
6	6560	DISCHARGING	09-10-25 03:08:51	09-10-25 03:12:25	3.56	100.0	99.6	98.0	1.66	7.15	-231.31
6	6561	DISCHARGING	09-10-25 03:45:56	09-10-25 07:32:52	226.92	99.6	63.6	98.0	149.23	155.04	96.11
6	6562	CHARGING	09-10-25 07:32:54	09-10-25 07:33:45	0.86	63.6	63.6	98.0	0.0	0.19	nan
6	6563	DISCHARGING	09-10-25 07:33:47	09-10-25 07:34:09	0.36	63.6	63.6	98.0	0.0	0.04	nan
6	6565	DISCHARGING	09-10-25 07:34:12	09-10-25 07:34:34	0.36	63.6	63.6	98.0	0.0	0.01	nan
6	6568	CHARGING	09-10-25 07:36:11	09-10-25 08:03:08	26.95	63.6	80.0	98.0	67.98	91.33	65.66
6	6569	DISCHARGING	09-10-25 08:03:10	09-10-25 12:00:40	237.51	80.0	42.8	98.0	154.21	159.95	96.28
6	6570	CHARGING	09-10-25 12:06:41	09-10-25 13:21:34	74.88	42.8	100.0	98.0	237.12	243.21	97.43
6	6573	DISCHARGING	09-10-25 13:23:47	09-10-25 13:54:01	30.23	100.0	99.6	98.0	1.66	0.72	43.14
6	6574	DISCHARGING	09-10-25 13:59:35	09-10-25 23:11:25	551.84	99.6	48.8	98.0	210.59	203.48	96.63
6	6575	CHARGING	09-10-25 23:11:26	10-10-25 01:59:50	168.4	48.8	100.0	98.0	212.24	228.44	92.37
6	6576	DISCHARGING	10-10-25 01:59:52	10-10-25 06:00:45	240.89	100.0	66.0	98.0	140.94	140.33	99.56
6	6577	CHARGING	10-10-25 06:00:48	10-10-25 06:26:43	25.92	66.0	80.0	98.0	58.04	75.83	69.35
6	6578	DISCHARGING	10-10-25 06:26:44	10-10-25 10:02:47	216.05	80.0	42.4	98.0	155.87	159.21	97.86
6	6579	CHARGING	10-10-25 10:09:59	10-10-25 11:23:57	73.96	42.4	100.0	98.0	238.78	253.81	93.7
6	6580	CHARGING	10-10-25 12:35:06	10-10-25 12:35:11	0.09	100.0	100.0	98.0	0.0	4.49	nan
6	6581	DISCHARGING	10-10-25 12:35:12	10-10-25 12:37:41	2.48	100.0	100.0	98.0	0.0	0.0	nan
6	6582	DISCHARGING	10-10-25 14:22:57	11-10-25 00:08:15	585.29	100.0	50.0	98.0	207.27	203.66	98.26
6	6583	CHARGING	11-10-25 00:10:04	11-10-25 01:18:27	68.39	50.0	100.0	98.0	207.27	222.52	92.64
6	6584	DISCHARGING	11-10-25 01:18:28	11-10-25 01:20:31	2.05	100.0	99.6	98.0	1.66	0.87	52.7
6	6585	DISCHARGING	11-10-25 02:15:06	11-10-25 02:15:43	0.62	99.6	99.6	98.0	0.0	0.69	nan
6	6586	DISCHARGING	11-10-25 02:28:09	11-10-25 06:20:54	232.74	99.6	66.4	98.0	137.63	139.98	98.29
6	6587	CHARGING	11-10-25 06:20:55	11-10-25 06:21:08	0.21	66.4	66.4	98.0	0.0	0.02	nan
6	6588	DISCHARGING	11-10-25 06:21:09	11-10-25 06:21:26	0.28	66.4	66.4	98.0	0.0	0.03	nan

Vehicle 6 — Session SoC Accuracy (Page 4/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
6	6589	CHARGING	11-10-25 06:21:27	11-10-25 06:21:38	0.19	66.4	66.4	98.0	0.0	0.64	nan
6	6591	CHARGING	11-10-25 06:21:41	11-10-25 06:44:35	22.91	66.4	80.0	98.0	56.38	63.87	86.71
6	6592	DISCHARGING	11-10-25 06:44:36	11-10-25 10:35:13	230.61	80.0	41.2	98.0	160.84	159.32	99.05
6	6593	CHARGING	11-10-25 10:40:34	11-10-25 12:12:31	91.95	41.2	100.0	98.0	243.75	255.97	94.99
6	6596	DISCHARGING	11-10-25 12:12:51	11-10-25 12:17:05	4.24	100.0	99.6	98.0	1.66	0.16	9.92
6	6599	DISCHARGING	11-10-25 13:34:58	11-10-25 13:45:58	10.99	99.6	99.6	98.0	0.0	0.57	nan
6	6600	DISCHARGING	11-10-25 14:13:54	11-10-25 23:41:20	567.43	99.6	46.8	98.0	218.88	214.34	97.93
6	6601	CHARGING	11-10-25 23:41:21	12-10-25 02:18:23	157.03	46.8	100.0	98.0	220.54	237.76	92.19
6	6602	DISCHARGING	12-10-25 02:18:24	12-10-25 06:19:35	241.19	100.0	66.4	98.0	139.28	144.3	96.4
6	6603	CHARGING	12-10-25 06:19:51	12-10-25 06:40:36	20.75	66.4	80.0	98.0	56.38	68.27	78.9
6	6604	CHARGING	12-10-25 06:47:58	12-10-25 06:48:06	0.13	80.0	80.0	98.0	0.0	5.86	nan
6	6605	DISCHARGING	12-10-25 06:48:07	12-10-25 10:29:03	220.94	80.0	41.6	98.0	159.18	167.65	94.68
6	6607	CHARGING	12-10-25 10:38:57	12-10-25 12:36:35	117.63	41.6	100.0	98.0	242.09	255.7	94.38
6	6608	CHARGING	12-10-25 13:38:54	12-10-25 13:38:58	0.07	100.0	100.0	98.0	0.0	4.36	nan
6	6609	DISCHARGING	12-10-25 13:38:59	12-10-25 13:47:06	8.11	100.0	99.6	98.0	1.66	0.99	59.92
6	6610	DISCHARGING	12-10-25 14:22:16	12-10-25 23:24:36	542.33	99.6	53.6	98.0	190.69	186.32	97.71
6	6612	CHARGING	12-10-25 23:34:11	13-10-25 00:42:12	68.01	53.6	100.0	98.0	192.35	209.4	91.14
6	6614	CHARGING	13-10-25 01:02:22	13-10-25 01:02:55	0.55	100.0	100.0	98.0	0.0	0.45	nan
6	6615	CHARGING	13-10-25 01:30:57	13-10-25 01:30:58	0.02	100.0	100.0	98.0	0.0	4.96	nan
6	6616	DISCHARGING	13-10-25 01:30:59	13-10-25 01:32:41	1.71	100.0	100.0	98.0	0.0	0.05	nan
6	6617	DISCHARGING	13-10-25 01:42:40	13-10-25 06:10:47	268.11	100.0	66.4	98.0	139.28	141.26	98.58
6	6618	CHARGING	13-10-25 06:11:10	13-10-25 06:13:01	1.85	66.4	66.4	98.0	0.0	0.31	nan
6	6619	DISCHARGING	13-10-25 06:14:56	13-10-25 06:16:41	1.76	66.4	66.4	98.0	0.0	0.06	nan
6	6620	CHARGING	13-10-25 06:17:07	13-10-25 06:39:50	22.72	66.4	80.0	98.0	56.38	68.14	79.14
6	6621	DISCHARGING	13-10-25 06:39:51	13-10-25 10:29:07	229.27	80.0	44.4	98.0	147.58	151.89	97.08
6	6622	CHARGING	13-10-25 10:29:33	13-10-25 11:51:46	82.21	44.4	100.0	98.0	230.48	238.96	96.32
6	6624	DISCHARGING	13-10-25 13:30:07	13-10-25 23:38:21	608.24	100.0	50.8	98.0	203.95	201.13	98.62
6	6625	CHARGING	13-10-25 23:38:22	14-10-25 01:30:25	112.05	50.8	100.0	98.0	203.95	219.7	92.28
6	6628	DISCHARGING	14-10-25 01:30:52	14-10-25 06:08:39	277.78	100.0	66.4	98.0	139.28	136.67	98.12
6	6629	CHARGING	14-10-25 06:08:40	14-10-25 06:34:43	26.05	66.4	81.2	98.0	61.35	81.47	67.2

Vehicle 6 — Session SoC Accuracy (Page 5/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
6	6630	DISCHARGING	14-10-25 06:34:44	14-10-25 10:30:53	236.14	81.2	44.8	98.0	150.89	155.03	97.26
6	6631	CHARGING	14-10-25 10:30:54	14-10-25 10:50:28	19.57	44.8	52.0	98.0	29.85	31.92	93.05
6	6633	CHARGING	14-10-25 10:52:49	14-10-25 11:55:06	62.28	52.0	100.0	98.0	198.98	197.97	99.49
6	6635	DISCHARGING	14-10-25 12:21:20	14-10-25 12:35:36	14.28	100.0	99.6	98.0	1.66	0.62	37.13
6	6637	DISCHARGING	14-10-25 14:14:40	14-10-25 23:32:35	557.91	99.6	52.4	98.0	195.66	194.06	99.18
6	6638	CHARGING	14-10-25 23:32:36	15-10-25 01:20:13	107.61	52.4	100.0	98.0	197.32	210.57	93.29
6	6641	DISCHARGING	15-10-25 01:24:08	15-10-25 01:30:53	6.75	100.0	99.6	98.0	1.66	0.75	45.27
6	6642	DISCHARGING	15-10-25 02:27:27	15-10-25 02:27:46	0.32	99.6	99.6	98.0	0.0	3.5	nan
6	6643	DISCHARGING	15-10-25 03:08:23	15-10-25 07:13:27	245.06	99.6	62.4	97.87	154.0	162.85	94.25
6	6646	CHARGING	15-10-25 07:14:12	15-10-25 07:46:12	32.0	62.4	80.8	97.6	75.96	98.25	70.66
6	6647	DISCHARGING	15-10-25 07:46:13	15-10-25 11:55:40	249.45	80.8	44.0	97.6	151.93	155.28	97.8
6	6648	CHARGING	15-10-25 11:55:41	15-10-25 14:18:06	142.41	44.0	100.0	97.6	231.2	233.25	99.11
6	6649	DISCHARGING	15-10-25 14:18:09	15-10-25 23:51:21	573.2	100.0	48.4	97.6	213.03	208.45	97.85
6	6650	CHARGING	15-10-25 23:51:24	15-10-25 23:52:00	0.6	48.4	48.4	97.6	0.0	2.26	nan
6	6652	CHARGING	15-10-25 23:52:02	16-10-25 02:12:22	140.32	48.4	100.0	97.6	213.03	226.9	93.49
6	6653	DISCHARGING	16-10-25 02:12:23	16-10-25 06:10:22	237.99	100.0	64.0	97.6	148.62	148.37	99.83
6	6654	CHARGING	16-10-25 06:10:23	16-10-25 06:40:08	29.75	64.0	80.0	97.6	66.06	74.6	87.07
6	6655	DISCHARGING	16-10-25 06:40:09	16-10-25 10:34:00	233.84	80.0	42.8	97.6	153.58	155.63	98.66
6	6656	CHARGING	16-10-25 10:34:01	16-10-25 10:59:18	25.29	42.8	62.4	97.6	80.92	86.77	92.77
6	6657	CHARGING	16-10-25 11:14:11	16-10-25 12:04:15	50.07	62.4	100.0	97.6	155.23	162.75	95.16
6	6658	DISCHARGING	16-10-25 12:33:39	16-10-25 12:40:09	6.5	100.0	100.0	97.6	0.0	0.94	nan
6	6659	DISCHARGING	16-10-25 12:51:04	16-10-25 13:14:40	23.59	100.0	100.0	97.6	0.0	3.15	nan
6	6661	DISCHARGING	16-10-25 14:14:55	16-10-25 23:37:48	562.89	100.0	46.4	97.6	221.29	222.02	99.67
6	6662	CHARGING	16-10-25 23:37:50	17-10-25 01:15:00	97.17	46.4	100.0	97.6	221.29	238.49	92.22
6	6663	DISCHARGING	17-10-25 01:15:01	17-10-25 01:20:44	5.72	100.0	100.0	97.6	0.0	4.28	nan
6	6664	DISCHARGING	17-10-25 02:04:03	17-10-25 06:10:58	246.92	100.0	67.2	97.6	135.41	137.71	98.31
6	6665	CHARGING	17-10-25 06:10:59	17-10-25 06:32:35	21.61	67.2	80.0	97.6	52.84	56.88	92.36
6	6666	DISCHARGING	17-10-25 06:32:36	17-10-25 10:24:41	232.07	80.0	41.2	97.6	160.18	164.86	97.08
6	6667	CHARGING	17-10-25 10:26:04	17-10-25 12:01:19	95.25	41.2	100.0	97.6	242.76	258.86	93.37
6	6669	DISCHARGING	17-10-25 12:57:19	17-10-25 13:06:57	9.63	100.0	99.6	97.6	1.65	0.48	28.81

Vehicle 6 — Session SoC Accuracy (Page 6/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
6	6670	DISCHARGING	17-10-25 14:29:58	18-10-25 00:16:40	586.7	99.6	44.0	97.6	229.54	226.39	98.63
6	6671	CHARGING	18-10-25 00:16:42	18-10-25 01:44:49	88.12	44.0	100.0	97.6	231.2	248.74	92.41
6	6673	DISCHARGING	18-10-25 02:11:34	18-10-25 06:16:57	245.39	100.0	64.4	97.6	146.97	152.73	96.09
6	6674	CHARGING	18-10-25 06:17:28	18-10-25 06:49:02	31.56	64.4	80.0	97.6	64.4	76.45	81.3
6	6675	DISCHARGING	18-10-25 06:49:03	18-10-25 10:30:09	221.1	80.0	43.2	97.6	151.93	153.5	98.97
6	6676	CHARGING	18-10-25 10:30:10	18-10-25 11:47:29	77.32	43.2	100.0	97.6	234.5	244.64	95.68
6	6679	DISCHARGING	18-10-25 14:40:39	19-10-25 00:17:08	576.48	99.6	46.0	97.6	221.29	219.17	99.04
6	6680	CHARGING	19-10-25 00:17:09	19-10-25 01:37:06	79.96	46.0	100.0	97.6	222.94	239.25	92.68
6	6681	DISCHARGING	19-10-25 01:37:07	19-10-25 02:02:16	25.14	100.0	100.0	97.6	0.0	1.21	nan
6	6682	DISCHARGING	19-10-25 02:18:13	19-10-25 06:08:28	230.26	100.0	67.2	97.6	135.41	126.85	93.68
6	6683	CHARGING	19-10-25 06:08:31	19-10-25 06:09:51	1.34	67.2	67.6	97.6	1.65	0.29	17.69
6	6684	DISCHARGING	19-10-25 06:09:53	19-10-25 06:10:15	0.36	67.6	67.2	97.6	1.65	0.02	1.03
6	6685	CHARGING	19-10-25 06:10:18	19-10-25 06:33:19	23.03	67.2	80.0	97.6	52.84	71.63	64.46
6	6686	DISCHARGING	19-10-25 06:33:22	19-10-25 10:07:09	213.78	80.0	45.6	97.6	142.02	141.82	99.86
6	6687	CHARGING	19-10-25 10:12:30	19-10-25 11:19:28	66.97	45.6	100.0	97.6	224.59	225.02	99.81
6	6689	DISCHARGING	19-10-25 13:28:20	19-10-25 22:39:25	551.08	100.0	47.6	97.6	216.33	216.4	99.97
6	6690	CHARGING	19-10-25 22:39:27	19-10-25 23:54:21	74.91	47.6	100.0	97.6	216.33	230.07	93.65
6	6691	DISCHARGING	19-10-25 23:54:22	19-10-25 23:58:11	3.81	100.0	99.6	97.6	1.65	1.22	73.65
6	6692	DISCHARGING	20-10-25 01:26:19	20-10-25 01:33:25	7.1	99.6	99.6	97.6	0.0	3.61	nan
6	6693	DISCHARGING	20-10-25 02:48:37	20-10-25 02:48:56	0.32	99.6	99.6	97.6	0.0	2.6	nan
6	6694	DISCHARGING	20-10-25 05:31:28	20-10-25 05:33:11	1.71	99.6	99.6	97.6	0.0	0.59	nan
6	6695	DISCHARGING	20-10-25 06:22:44	20-10-25 06:29:15	6.53	99.6	99.6	97.6	0.0	6.96	nan
6	6696	DISCHARGING	20-10-25 12:41:20	20-10-25 12:43:03	1.73	99.6	99.6	97.6	0.0	0.02	nan
6	6697	DISCHARGING	20-10-25 14:30:07	20-10-25 21:09:27	399.34	99.6	60.0	97.6	163.49	161.1	98.54
6	6698	CHARGING	20-10-25 21:11:23	20-10-25 21:53:37	42.24	60.0	86.0	97.6	107.34	148.03	62.09
6	6699	DISCHARGING	20-10-25 21:53:38	21-10-25 01:59:05	245.46	86.0	55.2	97.6	127.16	131.43	96.64
6	6700	CHARGING	21-10-25 02:01:01	21-10-25 02:55:43	54.7	55.2	100.0	97.6	184.96	167.63	90.63
6	6703	DISCHARGING	21-10-25 03:03:01	21-10-25 03:34:27	31.43	100.0	98.4	97.6	6.61	4.33	65.61
6	6704	DISCHARGING	21-10-25 03:48:09	21-10-25 07:35:20	227.17	98.4	67.6	97.6	127.16	124.96	98.27
6	6705	CHARGING	21-10-25 07:42:44	21-10-25 08:14:57	32.22	67.6	86.0	97.6	75.96	120.7	41.11

Vehicle 6 — Session SoC Accuracy (Page 7/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
6	6706	DISCHARGING	21-10-25 08:14:58	21-10-25 14:16:36	361.64	86.0	42.8	97.6	178.35	184.03	96.82
6	6707	CHARGING	21-10-25 14:16:40	21-10-25 14:17:08	0.47	42.8	42.8	97.6	0.0	0.59	nan
6	6709	CHARGING	21-10-25 14:17:10	21-10-25 15:32:33	75.38	42.8	100.0	97.6	236.15	217.27	92.01
6	6710	DISCHARGING	21-10-25 15:32:34	21-10-25 21:04:52	332.3	100.0	60.4	97.6	163.49	168.02	97.23
6	6711	CHARGING	21-10-25 21:06:11	21-10-25 21:47:31	41.34	60.4	86.0	97.6	105.69	150.71	57.4
6	6712	DISCHARGING	21-10-25 21:47:33	22-10-25 01:09:38	202.08	86.0	51.2	97.6	143.67	148.1	96.92
6	6714	DISCHARGING	22-10-25 03:36:07	22-10-25 03:44:42	8.59	51.2	50.8	97.6	1.65	0.74	44.65
6	6715	DISCHARGING	22-10-25 04:10:44	22-10-25 04:23:02	12.29	50.8	50.8	97.6	0.0	0.07	nan
6	6716	DISCHARGING	22-10-25 04:28:21	22-10-25 04:31:33	3.2	50.8	50.8	97.6	0.0	0.05	nan
6	6717	CHARGING	22-10-25 04:32:26	22-10-25 05:30:33	58.12	50.8	100.0	97.6	203.12	184.52	90.84
6	6718	DISCHARGING	22-10-25 06:11:00	22-10-25 06:14:29	3.48	100.0	99.6	97.6	1.65	0.1	6.23
6	6719	DISCHARGING	22-10-25 11:30:21	22-10-25 11:32:10	1.83	99.6	99.6	97.6	0.0	5.89	nan
6	6720	DISCHARGING	22-10-25 13:12:09	22-10-25 13:21:28	9.33	99.6	99.6	97.6	0.0	5.49	nan
6	6721	DISCHARGING	22-10-25 13:53:00	22-10-25 17:58:31	245.51	99.6	66.0	97.6	138.72	141.09	98.29
6	6724	CHARGING	22-10-25 17:59:41	22-10-25 18:31:20	31.65	66.0	84.8	97.6	77.61	114.0	53.13
6	6725	DISCHARGING	22-10-25 18:31:22	22-10-25 23:21:24	290.03	84.8	38.8	97.6	189.91	194.62	97.52
6	6726	CHARGING	22-10-25 23:21:25	23-10-25 01:20:46	119.35	38.8	88.4	97.6	204.77	218.99	93.06
6	6728	CHARGING	23-10-25 01:22:06	23-10-25 01:32:02	9.93	88.4	100.0	97.6	47.89	22.24	46.45
6	6729	CHARGING	23-10-25 01:39:56	23-10-25 01:39:57	0.02	100.0	100.0	97.6	0.0	2.34	nan
6	6730	DISCHARGING	23-10-25 01:39:58	23-10-25 01:39:58	0.01	100.0	100.0	97.6	0.0	0.0	nan
6	6732	DISCHARGING	23-10-25 01:40:25	23-10-25 01:43:27	3.03	100.0	99.6	97.6	1.65	0.3	18.0
6	6733	DISCHARGING	23-10-25 02:13:31	23-10-25 08:15:25	361.9	99.6	56.0	97.6	180.0	182.28	98.73
6	6734	CHARGING	23-10-25 08:15:26	23-10-25 08:51:26	36.01	56.0	81.6	97.6	105.69	133.79	73.41
6	6735	DISCHARGING	23-10-25 08:51:28	23-10-25 12:23:16	211.81	81.6	51.6	97.6	123.85	125.11	98.99
6	6736	CHARGING	23-10-25 12:23:17	23-10-25 13:38:27	75.16	51.6	100.0	97.6	199.82	197.22	98.7
6	6737	DISCHARGING	23-10-25 13:38:28	23-10-25 18:05:46	267.3	100.0	72.4	97.6	113.95	114.82	99.23
6	6738	CHARGING	23-10-25 18:05:47	23-10-25 18:22:27	16.67	72.4	81.2	97.6	36.33	58.27	39.62
6	6739	DISCHARGING	23-10-25 18:22:28	23-10-25 23:33:31	311.05	81.2	40.4	97.6	168.44	168.82	99.78
6	6740	CHARGING	23-10-25 23:33:32	24-10-25 01:25:23	111.86	40.4	100.0	97.6	246.06	245.2	99.65
6	6741	DISCHARGING	24-10-25 01:25:25	24-10-25 01:28:38	3.23	100.0	99.6	97.6	1.65	0.15	8.85

Vehicle 6 — Session SoC Accuracy (Page 8/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
6	6742	DISCHARGING	24-10-25 02:25:04	24-10-25 08:37:54	372.84	99.6	54.4	97.6	186.61	193.35	96.39
6	6743	CHARGING	24-10-25 08:37:55	24-10-25 09:15:06	37.18	54.4	80.8	97.6	108.99	136.36	74.89
6	6744	DISCHARGING	24-10-25 09:15:07	24-10-25 13:37:00	261.88	80.8	49.6	97.6	128.81	130.86	98.4
6	6745	CHARGING	24-10-25 13:38:13	24-10-25 14:43:27	65.23	49.6	100.0	97.6	208.08	202.74	97.44
6	6746	DISCHARGING	24-10-25 14:43:28	24-10-25 18:51:32	248.07	100.0	69.6	97.6	125.51	127.05	98.77
6	6747	CHARGING	24-10-25 18:51:33	24-10-25 19:04:17	12.74	69.6	80.0	97.6	42.94	45.26	94.6
6	6748	DISCHARGING	24-10-25 19:04:18	24-10-25 23:44:50	280.53	80.0	34.0	97.6	189.91	187.27	98.61
6	6749	CHARGING	24-10-25 23:44:52	25-10-25 01:53:56	129.07	34.0	100.0	97.6	272.48	279.46	97.44
6	6752	DISCHARGING	25-10-25 01:54:10	25-10-25 08:22:37	388.44	100.0	55.2	97.6	184.96	187.7	98.51
6	6753	CHARGING	25-10-25 08:22:38	25-10-25 08:53:27	30.82	55.2	80.0	97.6	102.39	109.63	92.92
6	6754	DISCHARGING	25-10-25 08:53:28	25-10-25 13:21:57	268.48	80.0	50.4	97.6	122.2	119.37	97.68
6	6761	CHARGING	25-10-25 13:24:50	25-10-25 14:50:01	85.18	50.4	90.0	97.6	163.49	197.73	79.05
6	6762	DISCHARGING	25-10-25 14:50:04	25-10-25 19:00:39	250.57	90.0	62.0	97.6	115.6	114.86	99.36
6	6763	CHARGING	25-10-25 19:00:40	25-10-25 19:34:48	34.14	62.0	86.0	97.6	99.08	125.0	73.84
6	6764	DISCHARGING	25-10-25 19:34:49	26-10-25 00:55:29	320.67	86.0	45.2	97.6	168.44	170.62	98.71
6	6765	CHARGING	26-10-25 00:55:30	26-10-25 02:15:15	79.74	45.2	100.0	97.6	226.24	200.12	88.45
6	6768	DISCHARGING	26-10-25 02:26:24	26-10-25 08:12:00	345.6	100.0	51.2	97.6	201.47	205.23	98.13
6	6769	DISCHARGING	26-10-25 08:58:31	26-10-25 09:00:07	1.6	51.2	51.2	97.6	0.0	0.03	nan
6	6770	CHARGING	26-10-25 09:00:52	26-10-25 09:48:15	47.38	51.2	74.8	97.6	97.43	104.01	93.24
6	6773	DISCHARGING	26-10-25 09:48:23	26-10-25 13:26:18	217.91	74.8	40.4	97.6	142.02	138.87	97.78
6	6774	CHARGING	26-10-25 13:26:19	26-10-25 14:51:34	85.25	40.4	100.0	97.6	246.06	261.17	93.86
6	6775	DISCHARGING	26-10-25 14:51:35	26-10-25 14:55:33	3.97	100.0	99.6	97.6	1.65	0.48	28.93
6	6776	DISCHARGING	26-10-25 15:32:04	26-10-25 22:28:47	416.73	99.6	37.6	97.6	255.97	254.9	99.59
6	6777	DISCHARGING	27-10-25 00:13:08	27-10-25 00:26:24	13.27	37.6	37.2	97.6	1.65	0.78	47.2
6	6778	DISCHARGING	27-10-25 03:24:39	27-10-25 04:12:06	47.46	37.2	36.8	97.6	1.65	0.31	18.6
6	6779	DISCHARGING	27-10-25 04:48:55	27-10-25 05:15:50	26.91	36.8	36.4	97.6	1.65	12.37	-549.01
6	6782	CHARGING	27-10-25 05:25:34	27-10-25 05:27:18	1.73	36.4	36.4	97.6	0.0	2.12	nan
6	6786	CHARGING	27-10-25 05:29:04	27-10-25 06:43:33	74.47	36.4	81.2	97.6	184.96	212.01	85.37
6	6787	DISCHARGING	27-10-25 06:43:35	27-10-25 11:48:20	304.75	81.2	70.0	97.6	46.24	33.0	71.37
6	6789	CHARGING	27-10-25 12:12:56	27-10-25 12:16:45	3.83	70.0	71.2	97.6	4.95	5.53	88.34

Vehicle 6 — Session SoC Accuracy (Page 9/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
6	6790	DISCHARGING	27-10-25 12:16:46	27-10-25 12:18:59	2.21	71.2	71.2	97.6	0.0	0.02	nan
6	6793	CHARGING	27-10-25 12:19:32	27-10-25 13:02:00	42.46	71.2	100.0	97.6	118.9	103.51	87.06
6	6795	DISCHARGING	27-10-25 13:08:34	27-10-25 13:16:39	8.08	100.0	99.6	97.6	1.65	0.14	8.5
6	6796	DISCHARGING	27-10-25 13:32:53	27-10-25 22:10:33	517.66	99.6	59.2	97.43	166.51	162.9	97.83
6	6797	CHARGING	27-10-25 22:15:15	28-10-25 00:09:55	114.67	59.2	100.0	97.2	167.75	178.51	93.59
6	6798	DISCHARGING	28-10-25 00:09:56	28-10-25 00:17:49	7.89	100.0	99.6	97.2	1.64	0.6	36.76
6	6799	DISCHARGING	29-10-25 00:54:51	29-10-25 00:57:25	2.57	99.6	99.6	97.2	0.0	0.87	nan
6	6800	DISCHARGING	29-10-25 11:53:24	29-10-25 11:57:30	4.1	99.6	99.6	97.2	0.0	2.51	nan
6	6801	DISCHARGING	29-10-25 13:06:13	29-10-25 18:07:06	300.9	99.6	69.6	97.2	123.35	123.07	99.78
6	6802	CHARGING	29-10-25 18:07:07	29-10-25 18:32:28	25.34	69.6	80.0	97.2	42.76	44.8	95.24
6	6803	DISCHARGING	29-10-25 18:32:29	29-10-25 23:22:09	289.66	80.0	38.4	97.2	171.04	172.23	99.31
6	6804	CHARGING	29-10-25 23:22:10	30-10-25 00:51:20	89.16	38.4	100.0	97.2	253.27	270.53	93.19
6	6465	DISCHARGING	30-09-25 18:30:02	01-10-25 01:43:12	433.17	92.0	43.2	98.4	203.12	205.35	98.9
6	6805	DISCHARGING	30-10-25 00:51:21	30-10-25 00:57:29	6.14	100.0	99.6	97.2	1.64	0.51	31.06
6	6807	DISCHARGING	30-10-25 02:11:10	30-10-25 06:09:18	238.12	99.6	64.0	97.2	146.37	149.77	97.68
6	6808	CHARGING	30-10-25 06:09:20	30-10-25 06:31:51	22.53	64.0	80.0	97.2	65.78	70.53	92.79
6	6809	DISCHARGING	30-10-25 06:31:52	30-10-25 10:40:22	248.5	80.0	38.8	97.2	169.4	170.75	99.2
6	6810	CHARGING	30-10-25 10:40:23	30-10-25 11:47:57	67.56	38.8	80.0	97.2	169.4	180.53	93.43
6	6812	CHARGING	30-10-25 11:47:59	30-10-25 12:43:06	55.12	80.0	100.0	97.2	82.23	85.6	95.9
6	6814	CHARGING	30-10-25 12:43:09	30-10-25 12:44:01	0.86	100.0	100.0	97.2	0.0	2.31	nan
6	6817	DISCHARGING	30-10-25 13:56:29	30-10-25 18:25:55	269.43	100.0	98.8	97.2	4.93	2.54	51.4
6	6819	DISCHARGING	31-10-25 01:42:16	31-10-25 07:54:23	372.13	98.8	61.6	97.2	152.95	148.17	96.87
6	6820	CHARGING	31-10-25 07:54:27	31-10-25 08:23:34	29.12	61.6	80.0	97.2	75.65	92.35	77.93
6	6821	DISCHARGING	31-10-25 08:23:35	31-10-25 11:53:37	210.04	80.0	46.8	97.2	136.5	133.39	97.72
6	6822	CHARGING	31-10-25 11:53:38	31-10-25 12:53:33	59.91	46.8	82.0	97.2	144.73	171.5	81.5
6	6824	CHARGING	31-10-25 12:53:35	31-10-25 13:13:47	20.21	82.0	100.0	97.2	74.01	60.53	81.79
6	6825	DISCHARGING	31-10-25 13:13:49	31-10-25 18:29:58	316.17	100.0	70.8	97.2	120.06	118.99	99.11

Vehicle 7 — Session SoC Accuracy (Page 1/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
7	6829	CHARGING	01-10-25 02:19:13	01-10-25 03:17:42	58.48	41.2	82.0	98.0	169.13	199.65	81.95
7	6830	DISCHARGING	01-10-25 03:17:43	01-10-25 08:16:03	298.32	82.0	41.6	98.0	167.47	171.33	97.7
7	6831	CHARGING	01-10-25 08:17:04	01-10-25 09:06:57	49.88	41.6	81.2	98.0	164.16	172.2	95.1
7	6832	DISCHARGING	01-10-25 09:06:58	01-10-25 14:34:22	327.39	81.2	37.2	97.64	181.73	181.54	99.9
7	6833	CHARGING	01-10-25 14:34:59	01-10-25 15:41:20	66.36	37.2	94.0	97.6	234.5	250.94	92.99
7	6834	DISCHARGING	01-10-25 15:41:22	01-10-25 20:49:37	308.26	94.0	54.8	97.6	161.84	158.73	98.08
7	6835	CHARGING	01-10-25 20:49:38	01-10-25 21:22:28	32.83	54.8	80.0	97.6	104.04	115.41	89.07
7	6836	DISCHARGING	01-10-25 21:22:29	02-10-25 02:42:28	319.99	80.0	34.0	97.6	189.91	192.37	98.71
7	6839	CHARGING	02-10-25 02:43:55	02-10-25 02:46:05	2.16	34.0	34.0	97.6	0.0	1.1	nan
7	6841	CHARGING	02-10-25 02:46:07	02-10-25 05:04:49	138.7	34.0	100.0	97.6	272.48	277.6	98.12
7	6842	DISCHARGING	02-10-25 05:04:50	02-10-25 09:01:28	236.63	100.0	60.0	97.6	165.14	159.55	96.61
7	6843	CHARGING	02-10-25 09:01:29	02-10-25 09:30:41	29.19	60.0	80.0	97.6	82.57	89.4	91.73
7	6844	DISCHARGING	02-10-25 09:30:42	02-10-25 13:13:52	223.17	80.0	40.8	97.6	161.84	161.89	99.96
7	6845	CHARGING	02-10-25 13:13:54	02-10-25 13:18:04	4.18	40.8	41.2	97.6	1.65	1.09	66.05
7	6847	CHARGING	02-10-25 13:18:06	02-10-25 14:53:46	95.66	41.2	100.0	97.6	242.76	264.32	91.12
7	6851	DISCHARGING	02-10-25 15:44:45	03-10-25 01:10:24	565.65	100.0	42.4	97.6	237.8	234.44	98.59
7	6854	CHARGING	03-10-25 01:11:22	03-10-25 02:30:47	79.41	42.4	100.0	97.6	237.8	256.48	92.15
7	6855	DISCHARGING	03-10-25 02:30:48	03-10-25 02:34:03	3.24	100.0	99.6	97.6	1.65	0.1	6.38
7	6857	DISCHARGING	03-10-25 03:05:18	03-10-25 07:52:25	287.11	99.6	58.4	97.6	170.09	171.09	99.42
7	6858	CHARGING	03-10-25 07:52:26	03-10-25 08:25:35	33.16	58.4	80.0	97.6	89.18	101.24	86.47
7	6859	DISCHARGING	03-10-25 08:25:36	03-10-25 13:46:36	321.0	80.0	36.0	97.6	181.65	186.83	97.15
7	6860	CHARGING	03-10-25 13:46:37	03-10-25 13:49:08	2.51	36.0	36.0	97.6	0.0	1.58	nan
7	6862	CHARGING	03-10-25 13:49:10	03-10-25 15:16:16	87.11	36.0	100.0	97.6	264.22	281.71	93.38
7	6864	DISCHARGING	03-10-25 15:32:47	03-10-25 21:19:41	346.89	99.6	63.2	97.6	150.28	151.42	99.24
7	6865	CHARGING	03-10-25 21:19:42	03-10-25 21:42:42	23.01	63.2	80.0	97.6	69.36	75.62	90.97
7	6866	DISCHARGING	03-10-25 21:42:43	04-10-25 02:23:32	280.81	80.0	42.0	97.6	156.88	158.73	98.82
7	6867	CHARGING	04-10-25 02:24:39	04-10-25 03:27:59	63.34	42.0	91.2	97.6	203.12	245.23	79.27
7	6868	DISCHARGING	04-10-25 03:28:03	04-10-25 04:41:21	73.31	91.2	84.4	97.6	28.07	29.3	95.63
7	6869	DISCHARGING	04-10-25 04:47:01	04-10-25 08:25:59	218.96	84.0	44.4	97.6	163.49	162.87	99.62
7	6870	CHARGING	04-10-25 08:26:00	04-10-25 09:28:54	62.89	44.4	77.2	97.6	135.41	142.51	94.76

Vehicle 7 — Session SoC Accuracy (Page 2/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
7	6871	DISCHARGING	04-10-25 09:28:57	04-10-25 14:49:30	320.54	77.2	34.4	97.6	176.7	179.32	98.52
7	6872	CHARGING	04-10-25 14:49:31	04-10-25 15:48:42	59.18	34.4	84.4	97.6	206.42	215.2	95.75
7	6873	DISCHARGING	04-10-25 15:48:45	04-10-25 21:07:07	318.36	84.4	45.2	97.6	161.84	166.01	97.42
7	6874	CHARGING	04-10-25 21:07:09	04-10-25 21:51:22	44.21	45.2	80.0	97.6	143.67	156.81	90.85
7	6875	DISCHARGING	04-10-25 21:51:23	05-10-25 02:19:35	268.21	80.0	43.2	97.6	151.93	157.24	96.5
7	6876	CHARGING	05-10-25 02:19:36	05-10-25 03:46:57	87.34	43.2	100.0	97.6	234.5	233.49	99.57
7	6877	DISCHARGING	05-10-25 03:46:58	05-10-25 09:08:03	321.09	100.0	57.2	97.6	176.7	176.39	99.82
7	6878	CHARGING	05-10-25 09:08:04	05-10-25 09:40:06	32.03	57.2	80.0	97.6	94.13	104.31	89.18
7	6879	DISCHARGING	05-10-25 09:40:07	05-10-25 15:07:10	327.04	80.0	36.4	97.6	180.0	180.59	99.68
7	6880	CHARGING	05-10-25 15:07:11	05-10-25 16:31:49	84.63	36.4	100.0	97.6	262.57	278.65	93.88
7	6881	DISCHARGING	05-10-25 16:31:49	05-10-25 16:33:54	2.08	100.0	99.6	97.6	1.65	1.0	60.63
7	6882	DISCHARGING	05-10-25 16:43:29	05-10-25 21:56:57	313.47	99.6	64.0	97.6	146.97	141.48	96.26
7	6883	CHARGING	05-10-25 21:56:58	05-10-25 22:18:16	21.31	64.0	80.0	97.6	66.06	76.21	84.62
7	6884	DISCHARGING	05-10-25 22:18:19	06-10-25 02:39:51	261.54	80.0	41.2	97.6	160.18	164.04	97.59
7	6885	DISCHARGING	06-10-25 02:58:43	06-10-25 03:49:43	50.99	41.2	41.2	97.6	0.0	0.12	nan
7	6888	CHARGING	06-10-25 03:51:26	06-10-25 03:52:58	1.54	41.2	41.2	97.6	0.0	0.2	nan
7	6890	CHARGING	06-10-25 03:54:25	06-10-25 05:01:09	66.74	41.2	86.4	97.6	186.61	217.09	83.67
7	6891	DISCHARGING	06-10-25 05:01:11	06-10-25 09:14:10	252.98	86.4	46.4	97.6	165.14	163.8	99.19
7	6892	CHARGING	06-10-25 09:14:13	06-10-25 09:54:15	40.03	46.4	76.4	97.6	123.85	129.82	95.18
7	6893	DISCHARGING	06-10-25 09:55:29	06-10-25 14:12:14	256.75	76.4	35.6	97.6	168.44	171.48	98.2
7	6894	CHARGING	06-10-25 14:12:15	06-10-25 14:18:07	5.87	35.6	35.6	97.6	0.0	0.76	nan
7	6898	CHARGING	06-10-25 14:19:47	06-10-25 16:58:25	158.64	35.6	100.0	97.6	265.87	269.04	98.81
7	6899	DISCHARGING	06-10-25 16:58:26	07-10-25 02:22:46	564.32	100.0	41.6	97.6	241.1	240.6	99.79
7	6901	CHARGING	07-10-25 02:41:51	07-10-25 04:03:58	82.13	41.6	100.0	97.6	241.1	260.65	91.89
7	6902	CHARGING	07-10-25 04:51:06	07-10-25 04:51:08	0.03	100.0	100.0	97.6	0.0	3.17	nan
7	6903	DISCHARGING	07-10-25 04:51:09	07-10-25 05:29:24	38.25	100.0	98.4	97.6	6.61	5.96	90.24
7	6904	DISCHARGING	07-10-25 12:55:27	07-10-25 21:07:47	492.33	98.4	53.6	97.6	184.96	176.02	95.17
7	6905	CHARGING	07-10-25 21:07:48	07-10-25 21:43:40	35.88	53.6	80.0	97.6	108.99	122.41	87.69
7	6906	DISCHARGING	07-10-25 21:43:41	08-10-25 02:16:30	272.82	80.0	43.2	97.6	151.93	155.25	97.81
7	6907	CHARGING	08-10-25 02:20:40	08-10-25 04:36:30	135.82	43.2	100.0	97.6	234.5	247.71	94.37

Vehicle 7 — Session SoC Accuracy (Page 3/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
7	6909	DISCHARGING	08-10-25 12:18:53	08-10-25 16:20:18	241.41	100.0	99.2	97.6	3.3	0.14	4.36
7	6910	DISCHARGING	08-10-25 16:35:01	08-10-25 18:28:03	113.02	99.2	90.8	97.6	34.68	31.77	91.61
7	6911	DISCHARGING	08-10-25 18:33:43	08-10-25 21:32:05	178.38	90.0	60.8	97.6	120.55	128.36	93.52
7	6912	CHARGING	08-10-25 21:32:07	08-10-25 21:57:35	25.48	60.8	80.0	97.6	79.27	95.16	79.95
7	6913	DISCHARGING	08-10-25 21:57:37	09-10-25 01:40:16	222.66	80.0	44.0	97.6	148.62	147.49	99.23
7	6914	CHARGING	09-10-25 01:40:18	09-10-25 04:26:20	166.05	44.0	100.0	97.6	231.2	242.25	95.22
7	6916	DISCHARGING	09-10-25 04:53:50	09-10-25 04:58:21	4.51	100.0	99.6	97.6	1.65	0.02	1.1
7	6918	DISCHARGING	09-10-25 07:19:40	09-10-25 09:34:33	134.89	99.6	98.0	97.6	6.61	0.06	0.96
7	6919	DISCHARGING	09-10-25 10:44:22	09-10-25 10:49:15	4.89	98.0	98.0	97.6	0.0	0.26	nan
7	6920	DISCHARGING	09-10-25 11:44:55	09-10-25 21:00:00	555.08	98.0	53.6	97.6	183.3	182.08	99.33
7	6921	CHARGING	09-10-25 21:02:23	09-10-25 21:39:35	37.2	53.6	80.0	97.6	108.99	122.36	87.74
7	6922	DISCHARGING	09-10-25 21:39:36	10-10-25 02:27:44	288.14	80.0	45.2	97.6	143.67	143.65	99.98
7	6925	CHARGING	10-10-25 02:32:29	10-10-25 02:37:49	5.33	45.2	47.6	97.6	9.91	10.86	90.36
7	6927	CHARGING	10-10-25 02:37:51	10-10-25 03:56:43	78.87	47.6	100.0	97.6	216.33	224.44	96.25
7	6928	DISCHARGING	10-10-25 03:56:45	10-10-25 09:37:24	340.66	100.0	54.0	97.6	189.91	191.77	99.02
7	6929	CHARGING	10-10-25 09:37:25	10-10-25 09:37:42	0.29	54.0	54.0	97.6	0.0	0.36	nan
7	6933	CHARGING	10-10-25 09:42:33	10-10-25 09:42:50	0.29	54.0	54.0	97.6	0.0	0.62	nan
7	6935	CHARGING	10-10-25 09:42:52	10-10-25 09:55:25	12.55	54.0	60.4	97.6	26.42	27.98	94.09
7	6936	DISCHARGING	10-10-25 09:55:28	10-10-25 09:59:54	4.43	60.4	60.4	97.6	0.0	3.48	nan
7	6937	CHARGING	10-10-25 10:02:44	10-10-25 10:15:32	12.79	60.4	70.0	97.6	39.63	37.91	95.66
7	6938	DISCHARGING	10-10-25 10:15:33	10-10-25 10:16:57	1.4	70.0	70.0	97.6	0.0	0.05	nan
7	6939	DISCHARGING	10-10-25 10:26:27	10-10-25 10:28:26	1.98	70.0	70.0	97.6	0.0	0.09	nan
7	6940	CHARGING	10-10-25 10:28:27	10-10-25 10:43:13	14.76	70.0	80.0	97.6	41.28	46.86	86.49
7	6941	DISCHARGING	10-10-25 10:43:14	10-10-25 15:26:46	283.54	80.0	43.6	97.6	150.28	144.04	95.85
7	6942	CHARGING	10-10-25 15:26:47	10-10-25 16:43:22	76.58	43.6	100.0	97.6	232.85	251.38	92.04
7	6943	DISCHARGING	10-10-25 16:43:23	11-10-25 00:36:31	473.13	100.0	30.4	97.6	287.34	286.26	99.62
7	6944	CHARGING	11-10-25 00:47:40	11-10-25 02:30:10	102.5	30.4	100.0	97.6	287.34	306.88	93.2
7	6946	DISCHARGING	11-10-25 03:09:12	11-10-25 10:14:32	425.34	100.0	58.8	97.6	170.09	153.12	90.02
7	6947	CHARGING	11-10-25 10:15:44	11-10-25 10:46:42	30.98	58.8	76.0	97.6	71.01	81.51	85.22
7	6948	DISCHARGING	11-10-25 10:46:43	11-10-25 14:31:35	224.86	76.0	44.0	97.6	132.11	133.75	98.76

Vehicle 7 — Session SoC Accuracy (Page 4/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
7	6949	CHARGING	11-10-25 14:31:36	11-10-25 15:50:45	79.15	44.0	100.0	97.6	231.2	246.66	93.31
7	6950	DISCHARGING	11-10-25 15:50:46	11-10-25 21:20:05	329.32	100.0	61.2	97.6	160.18	159.15	99.35
7	6951	CHARGING	11-10-25 21:20:06	11-10-25 21:46:05	25.98	61.2	78.4	97.6	71.01	76.96	91.62
7	6952	DISCHARGING	11-10-25 21:46:06	12-10-25 01:59:59	253.89	78.4	44.4	97.6	140.37	138.69	98.8
7	6953	CHARGING	12-10-25 02:03:53	12-10-25 03:33:39	89.78	44.4	100.0	97.6	229.54	245.7	92.96
7	6954	DISCHARGING	12-10-25 03:33:40	12-10-25 10:02:37	388.94	100.0	57.2	97.6	176.7	170.47	96.47
7	6955	DISCHARGING	12-10-25 10:27:58	12-10-25 14:24:32	236.56	57.2	24.0	97.6	137.07	136.31	99.45
7	6956	CHARGING	12-10-25 14:24:33	12-10-25 15:22:47	58.23	24.0	63.6	97.6	163.49	173.65	93.78
7	6958	CHARGING	12-10-25 15:22:49	12-10-25 16:01:51	39.04	63.6	88.4	97.6	102.39	116.37	86.34
7	6960	CHARGING	12-10-25 16:04:01	12-10-25 16:05:10	1.15	88.4	88.4	97.6	0.0	3.81	nan
7	6962	CHARGING	12-10-25 16:05:12	12-10-25 16:20:19	15.12	88.4	98.8	97.6	42.94	41.0	95.48
7	6963	DISCHARGING	12-10-25 16:20:20	13-10-25 00:57:05	516.75	98.8	24.4	97.6	307.16	305.25	99.38
7	6964	CHARGING	13-10-25 00:58:38	13-10-25 02:49:04	110.43	24.4	100.0	97.6	312.11	333.6	93.11
7	6967	DISCHARGING	13-10-25 03:19:25	13-10-25 09:57:59	398.57	100.0	58.0	97.6	173.4	167.06	96.35
7	6968	CHARGING	13-10-25 09:58:17	13-10-25 10:15:32	17.25	58.0	70.0	97.6	49.54	51.67	95.71
7	6969	DISCHARGING	13-10-25 10:15:33	13-10-25 10:16:23	0.84	70.0	70.0	97.6	0.0	0.02	nan
7	6970	DISCHARGING	13-10-25 10:22:02	13-10-25 14:00:48	218.76	70.0	41.6	97.6	117.25	120.3	97.39
7	6971	CHARGING	13-10-25 14:00:49	13-10-25 15:34:38	93.81	41.6	100.0	97.6	241.1	256.74	93.52
7	6973	CHARGING	13-10-25 15:34:40	13-10-25 15:35:14	0.57	100.0	100.0	97.6	0.0	0.44	nan
7	6975	DISCHARGING	13-10-25 15:55:16	13-10-25 21:22:54	327.62	100.0	63.2	97.6	151.93	144.87	95.35
7	6976	CHARGING	13-10-25 21:22:55	13-10-25 21:40:32	17.62	63.2	72.8	97.6	39.63	43.05	91.37
7	6977	DISCHARGING	13-10-25 21:40:33	14-10-25 01:32:55	232.37	72.8	40.8	97.23	131.61	133.45	98.61
7	6978	DISCHARGING	14-10-25 01:43:10	14-10-25 01:47:05	3.9	40.8	40.8	97.2	0.0	0.17	nan
7	6979	CHARGING	14-10-25 01:47:06	14-10-25 02:26:43	39.62	40.8	56.4	97.2	64.14	67.02	95.5
7	6981	CHARGING	14-10-25 02:27:07	14-10-25 03:37:05	69.97	56.4	100.0	97.2	179.26	194.71	91.38
7	6982	DISCHARGING	14-10-25 03:37:06	14-10-25 13:48:29	611.38	100.0	30.4	97.2	286.17	282.14	98.59
7	6983	CHARGING	14-10-25 13:48:48	14-10-25 15:36:10	107.37	30.4	100.0	97.2	286.17	306.24	92.98
7	6985	DISCHARGING	14-10-25 15:47:39	14-10-25 21:09:16	321.62	99.6	61.6	97.2	156.24	154.3	98.76
7	6986	CHARGING	14-10-25 21:09:17	14-10-25 21:31:15	21.96	61.6	73.2	97.2	47.69	50.9	93.27
7	6987	DISCHARGING	14-10-25 21:31:16	15-10-25 01:27:05	235.82	73.2	39.2	97.2	139.79	143.26	97.52

Vehicle 7 — Session SoC Accuracy (Page 5/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
7	6988	CHARGING	15-10-25 01:27:06	15-10-25 03:27:10	120.07	39.2	100.0	97.2	249.98	268.32	92.67
7	6989	DISCHARGING	15-10-25 03:27:11	15-10-25 10:15:40	408.48	100.0	53.6	97.2	190.78	191.39	99.68
7	6990	CHARGING	15-10-25 10:15:41	15-10-25 10:42:40	26.98	53.6	72.0	97.2	75.65	79.48	94.94
7	6991	DISCHARGING	15-10-25 10:42:41	15-10-25 15:18:55	276.23	72.0	39.2	97.2	134.86	129.78	96.24
7	6992	CHARGING	15-10-25 15:32:39	15-10-25 16:57:48	85.16	39.2	98.8	97.2	245.05	267.98	90.64
7	6993	DISCHARGING	15-10-25 16:57:49	16-10-25 00:55:51	478.04	98.8	31.6	97.2	276.3	272.1	98.48
7	6994	CHARGING	16-10-25 00:55:53	16-10-25 03:47:29	171.6	31.6	100.0	97.2	281.23	301.52	92.78
7	6995	DISCHARGING	16-10-25 03:47:30	16-10-25 10:07:21	379.86	100.0	54.4	97.2	187.49	183.41	97.82
7	6996	CHARGING	16-10-25 10:07:22	16-10-25 10:35:28	28.1	54.4	75.6	97.2	87.16	93.55	92.67
7	6997	DISCHARGING	16-10-25 10:35:30	16-10-25 14:33:57	238.46	75.6	42.0	97.2	138.15	135.63	98.18
7	6998	CHARGING	16-10-25 14:34:01	16-10-25 15:58:57	84.94	42.0	100.0	97.2	238.47	259.11	91.35
7	7000	CHARGING	16-10-25 15:58:59	16-10-25 16:05:52	6.88	100.0	100.0	97.2	0.0	0.37	nan
7	7001	DISCHARGING	16-10-25 16:05:53	17-10-25 01:50:07	584.22	100.0	28.8	97.2	292.74	289.13	98.76
7	7004	CHARGING	17-10-25 01:50:57	17-10-25 01:52:13	1.28	28.8	28.8	97.2	0.0	0.33	nan
7	7008	CHARGING	17-10-25 01:58:39	17-10-25 03:34:07	95.46	28.8	100.0	97.2	292.74	311.87	93.47
7	7009	DISCHARGING	17-10-25 03:34:08	17-10-25 10:15:09	401.02	100.0	55.2	97.2	184.2	183.25	99.49
7	7010	CHARGING	17-10-25 10:15:35	17-10-25 10:42:19	26.74	55.2	71.6	97.2	67.43	70.84	94.94
7	7011	DISCHARGING	17-10-25 10:42:20	17-10-25 14:14:02	211.7	71.6	36.4	97.2	144.73	142.44	98.42
7	7012	CHARGING	17-10-25 14:14:09	17-10-25 15:59:04	104.92	36.4	100.0	97.2	261.5	274.98	94.84
7	7013	DISCHARGING	17-10-25 15:59:05	17-10-25 21:17:08	318.05	100.0	56.4	97.2	179.26	174.42	97.3
7	7014	CHARGING	17-10-25 21:17:09	17-10-25 21:32:05	14.92	56.4	64.8	97.2	34.54	35.68	96.68
7	7015	DISCHARGING	17-10-25 21:32:07	17-10-25 21:35:36	3.47	64.8	64.8	97.2	0.0	0.54	nan
7	7016	CHARGING	17-10-25 21:35:37	17-10-25 21:54:41	19.07	64.8	77.2	97.2	50.98	55.31	91.51
7	7017	DISCHARGING	17-10-25 21:54:42	18-10-25 02:32:54	278.19	77.2	42.8	97.2	141.44	144.03	98.17
7	7018	CHARGING	18-10-25 02:33:26	18-10-25 04:08:01	94.58	42.8	100.0	97.2	235.18	254.01	91.99
7	7019	DISCHARGING	18-10-25 04:08:02	18-10-25 09:32:38	324.6	100.0	59.6	97.2	166.11	160.25	96.47
7	7020	CHARGING	18-10-25 09:33:09	18-10-25 10:04:46	31.61	59.6	80.4	97.2	85.52	108.03	73.68
7	7021	DISCHARGING	18-10-25 10:04:47	18-10-25 15:17:54	313.12	80.4	43.2	97.2	152.95	143.94	94.11
7	7022	CHARGING	18-10-25 15:17:55	18-10-25 16:56:42	98.78	43.2	100.0	97.2	233.54	235.03	99.36
7	7025	DISCHARGING	18-10-25 17:00:26	18-10-25 21:10:49	250.38	100.0	58.8	97.2	169.4	169.75	99.79

Vehicle 7 — Session SoC Accuracy (Page 6/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
7	7026	CHARGING	18-10-25 21:10:50	18-10-25 21:33:43	22.88	58.8	76.8	97.2	74.01	79.1	93.12
7	7027	DISCHARGING	18-10-25 21:33:45	19-10-25 02:26:57	293.21	76.8	38.0	97.2	159.53	164.32	97.0
7	7028	CHARGING	19-10-25 02:26:58	19-10-25 04:08:12	101.23	38.0	100.0	97.2	254.92	276.39	91.58
7	7029	DISCHARGING	19-10-25 04:08:13	19-10-25 09:31:58	323.76	100.0	62.0	97.2	156.24	151.18	96.76
7	7030	CHARGING	19-10-25 09:32:47	19-10-25 10:03:48	31.02	62.0	81.2	97.2	78.94	104.05	68.19
7	7031	DISCHARGING	19-10-25 10:03:49	19-10-25 14:52:27	288.62	81.2	47.2	97.2	139.79	138.25	98.89
7	7034	CHARGING	19-10-25 14:52:47	19-10-25 16:03:00	70.22	47.2	97.6	97.2	207.22	212.92	97.25
7	7035	DISCHARGING	19-10-25 16:03:01	19-10-25 20:35:42	272.68	97.6	59.2	97.2	157.88	163.19	96.64
7	7036	CHARGING	19-10-25 20:35:43	19-10-25 21:01:52	26.14	59.2	80.0	97.2	85.52	92.5	91.83
7	7037	DISCHARGING	19-10-25 21:01:53	20-10-25 01:31:11	269.3	80.0	46.4	97.2	138.15	138.14	99.99
7	7038	CHARGING	20-10-25 01:35:22	20-10-25 02:41:55	66.54	46.4	100.0	97.2	220.38	232.34	94.57
7	7043	DISCHARGING	20-10-25 15:14:49	20-10-25 20:38:08	323.32	100.0	61.6	97.2	157.88	157.4	99.69
7	7044	CHARGING	20-10-25 20:38:09	20-10-25 21:00:49	22.66	61.6	80.0	97.2	75.65	83.88	89.12
7	7045	DISCHARGING	20-10-25 21:00:51	21-10-25 01:51:07	290.27	80.0	44.0	97.2	148.02	150.65	98.22
7	7046	CHARGING	21-10-25 01:51:30	21-10-25 03:15:31	84.03	44.0	100.0	97.2	230.25	250.31	91.29
7	7049	DISCHARGING	21-10-25 03:19:08	21-10-25 08:04:06	284.96	100.0	55.2	97.2	184.2	183.36	99.54
7	7050	CHARGING	21-10-25 08:04:08	21-10-25 08:41:44	37.6	55.2	80.4	97.2	103.61	128.73	75.75
7	7051	DISCHARGING	21-10-25 08:41:45	21-10-25 14:07:34	325.82	80.4	38.4	97.2	172.69	175.44	98.4
7	7054	CHARGING	21-10-25 14:08:02	21-10-25 15:39:27	91.4	38.4	100.0	97.2	253.27	253.42	99.94
7	7055	DISCHARGING	21-10-25 15:39:28	21-10-25 20:52:52	313.4	100.0	62.4	97.2	154.6	155.98	99.11
7	7056	CHARGING	21-10-25 20:54:34	21-10-25 21:17:22	22.81	62.4	80.0	97.2	72.36	81.47	87.42
7	7059	DISCHARGING	21-10-25 21:17:49	22-10-25 02:03:24	285.59	80.0	40.0	97.2	164.46	167.3	98.28
7	7060	CHARGING	22-10-25 02:03:27	22-10-25 03:43:45	100.3	40.0	100.0	97.2	246.69	259.66	94.74
7	7061	DISCHARGING	22-10-25 03:43:48	22-10-25 09:05:59	322.18	100.0	56.0	97.2	180.91	184.3	98.13
7	7062	CHARGING	22-10-25 09:06:02	22-10-25 09:34:39	28.6	56.0	73.6	97.2	72.36	77.62	92.74
7	7065	DISCHARGING	22-10-25 09:36:37	22-10-25 15:30:48	354.18	73.6	31.2	97.2	174.33	171.03	98.11
7	7066	CHARGING	22-10-25 15:30:49	22-10-25 15:31:29	0.66	31.2	31.2	97.2	0.0	1.58	nan
7	7068	CHARGING	22-10-25 15:31:31	22-10-25 16:46:02	74.53	31.2	87.6	97.2	231.89	283.56	77.72
7	7069	DISCHARGING	22-10-25 16:46:03	22-10-25 21:49:56	303.88	87.6	50.4	97.2	152.95	150.4	98.34
7	7072	CHARGING	22-10-25 21:53:51	22-10-25 22:26:01	32.17	50.4	75.2	97.2	101.97	108.73	93.37

Vehicle 7 — Session SoC Accuracy (Page 7/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
7	7073	DISCHARGING	22-10-25 22:26:02	23-10-25 02:59:02	273.0	75.2	39.2	97.2	148.02	149.13	99.24
7	7074	CHARGING	23-10-25 02:59:05	23-10-25 03:57:18	58.21	39.2	50.4	97.2	46.05	49.49	92.52
7	7076	CHARGING	23-10-25 03:57:20	23-10-25 05:12:58	75.63	50.4	100.0	97.2	203.93	188.33	92.35
7	7077	DISCHARGING	23-10-25 05:12:59	23-10-25 09:08:16	235.29	100.0	66.8	97.2	136.5	136.3	99.85
7	7078	CHARGING	23-10-25 09:08:37	23-10-25 09:25:19	16.69	66.8	78.0	97.2	46.05	49.12	93.33
7	7079	DISCHARGING	23-10-25 09:25:20	23-10-25 13:58:25	273.08	78.0	42.8	97.2	144.73	143.05	98.84
7	7080	CHARGING	23-10-25 13:58:26	23-10-25 16:17:46	139.33	42.8	100.0	97.2	235.18	254.91	91.61
7	7082	CHARGING	23-10-25 16:17:49	23-10-25 16:24:17	6.46	100.0	100.0	97.2	0.0	0.32	nan
7	7083	DISCHARGING	23-10-25 16:24:18	23-10-25 18:27:27	123.15	100.0	94.0	97.2	24.67	17.92	72.65
7	7084	DISCHARGING	23-10-25 18:35:17	24-10-25 01:22:13	406.94	93.6	47.6	97.2	189.13	191.66	98.66
7	7085	CHARGING	24-10-25 01:22:32	24-10-25 02:42:59	80.45	47.6	100.0	97.2	215.45	231.13	92.72
7	7088	DISCHARGING	24-10-25 02:43:42	24-10-25 08:17:50	334.14	100.0	58.8	97.2	169.4	169.43	99.98
7	7089	CHARGING	24-10-25 08:17:52	24-10-25 08:52:08	34.28	58.8	80.0	97.2	87.16	95.83	90.06
7	7090	DISCHARGING	24-10-25 08:52:10	24-10-25 14:28:42	336.55	80.0	39.2	97.2	167.75	169.23	99.12
7	7091	CHARGING	24-10-25 14:28:43	24-10-25 14:30:01	1.29	39.2	39.2	97.2	0.0	0.32	nan
7	7093	CHARGING	24-10-25 14:30:03	24-10-25 15:49:03	78.99	39.2	98.8	97.2	245.05	257.0	95.12
7	7094	DISCHARGING	24-10-25 15:49:04	24-10-25 21:04:22	315.31	98.8	60.0	97.2	159.53	154.0	96.53
7	7095	CHARGING	24-10-25 21:04:23	24-10-25 21:31:17	26.89	60.0	80.0	97.2	82.23	95.27	84.14
7	7096	DISCHARGING	24-10-25 21:31:18	25-10-25 01:57:13	265.92	80.0	42.0	97.2	156.24	154.09	98.63
7	7097	CHARGING	25-10-25 01:58:59	25-10-25 03:45:32	106.55	42.0	100.0	97.2	238.47	252.99	93.91
7	7099	CHARGING	25-10-25 03:45:36	25-10-25 03:47:00	1.41	100.0	100.0	97.2	0.0	7.02	nan
7	7100	DISCHARGING	25-10-25 03:47:01	25-10-25 03:47:02	0.01	100.0	100.0	97.2	0.0	0.0	nan
7	7102	DISCHARGING	25-10-25 03:48:06	25-10-25 09:11:30	323.39	100.0	60.4	97.12	162.69	167.93	96.78
7	7103	CHARGING	25-10-25 09:11:57	25-10-25 09:35:10	23.21	60.4	79.2	96.8	76.98	83.28	91.82
7	7104	DISCHARGING	25-10-25 09:35:11	25-10-25 14:53:17	318.1	79.2	38.4	96.8	167.06	172.68	96.64
7	7105	CHARGING	25-10-25 15:04:00	25-10-25 16:42:27	98.45	38.4	100.0	96.8	252.23	273.47	91.58
7	7106	DISCHARGING	25-10-25 16:42:28	25-10-25 18:29:15	106.78	100.0	92.4	96.8	31.12	25.09	80.63
7	7107	DISCHARGING	25-10-25 18:35:15	25-10-25 21:31:01	175.78	91.2	60.8	96.8	124.48	129.22	96.19
7	7108	CHARGING	25-10-25 21:31:59	25-10-25 21:58:44	26.76	60.8	80.0	96.8	78.62	91.96	83.02
7	7109	DISCHARGING	25-10-25 21:58:45	26-10-25 02:58:11	299.42	80.0	41.2	96.8	158.87	157.4	99.08

Vehicle 7 — Session SoC Accuracy (Page 8/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
7	7110	CHARGING	26-10-25 02:58:33	26-10-25 04:52:04	113.52	41.2	100.0	96.8	240.76	252.6	95.08
7	7111	DISCHARGING	26-10-25 04:52:05	26-10-25 08:57:41	245.59	100.0	62.4	96.8	153.96	161.55	95.07
7	7112	CHARGING	26-10-25 08:58:13	26-10-25 08:58:58	0.74	62.4	62.4	96.8	0.0	0.36	nan
7	7114	CHARGING	26-10-25 08:59:29	26-10-25 09:26:39	27.17	62.4	80.0	96.8	72.07	91.06	73.64
7	7115	DISCHARGING	26-10-25 09:28:03	26-10-25 13:40:52	252.83	80.0	39.2	96.8	167.06	160.48	96.06
7	7116	CHARGING	26-10-25 13:40:54	26-10-25 13:43:09	2.26	39.2	40.0	96.8	3.28	3.03	92.42
7	7118	CHARGING	26-10-25 13:43:12	26-10-25 15:20:34	97.37	40.0	100.0	96.8	245.68	254.99	96.21
7	7121	DISCHARGING	26-10-25 16:56:05	27-10-25 02:04:13	548.13	99.6	41.6	96.8	237.49	236.9	99.75
7	7122	CHARGING	27-10-25 02:04:14	27-10-25 03:59:14	114.99	41.6	100.0	96.8	239.13	254.38	93.62
7	7123	DISCHARGING	27-10-25 03:59:15	27-10-25 09:05:31	306.27	100.0	61.2	96.8	158.87	163.74	96.94
7	7124	CHARGING	27-10-25 09:06:25	27-10-25 09:30:21	23.92	61.2	80.0	96.8	76.98	86.2	88.02
7	7125	DISCHARGING	27-10-25 09:30:22	27-10-25 15:57:07	386.76	80.0	41.2	96.8	158.87	148.8	93.66
7	7126	CHARGING	27-10-25 15:57:09	27-10-25 15:59:56	2.79	41.2	41.2	96.8	0.0	0.29	nan
7	7128	CHARGING	27-10-25 15:59:58	27-10-25 17:00:42	60.73	41.2	88.8	96.8	194.9	219.97	87.14
7	7129	DISCHARGING	27-10-25 17:00:45	27-10-25 21:23:39	262.91	88.8	53.6	96.8	144.13	149.34	96.39
7	7130	CHARGING	27-10-25 21:23:40	27-10-25 21:56:53	33.22	53.6	80.0	96.8	108.1	124.33	84.98
7	7133	DISCHARGING	27-10-25 21:58:00	28-10-25 01:50:48	232.81	80.0	45.6	96.8	140.86	143.43	98.17
7	7134	CHARGING	28-10-25 01:50:50	28-10-25 03:06:06	75.27	45.6	98.8	96.8	217.84	221.23	98.44
7	7135	DISCHARGING	28-10-25 03:06:07	28-10-25 07:06:18	240.18	98.8	62.8	96.8	147.41	146.32	99.27
7	7136	CHARGING	28-10-25 07:06:40	28-10-25 07:35:53	29.21	62.8	80.0	96.8	70.43	81.61	84.12
7	7137	DISCHARGING	28-10-25 07:35:54	28-10-25 11:50:53	254.99	80.0	42.0	96.8	155.6	160.98	96.54
7	7138	CHARGING	28-10-25 11:50:54	28-10-25 13:26:11	95.28	42.0	100.0	96.8	237.49	249.96	94.75
7	7140	DISCHARGING	28-10-25 14:59:04	28-10-25 21:05:41	366.62	100.0	71.2	96.8	117.93	110.07	93.34
7	7141	CHARGING	28-10-25 21:06:15	28-10-25 21:46:09	39.91	71.2	100.0	96.8	117.93	123.28	95.46
7	7142	DISCHARGING	28-10-25 21:47:46	29-10-25 02:55:47	308.02	100.0	56.8	96.8	176.89	179.73	98.39
7	7143	DISCHARGING	29-10-25 03:10:18	29-10-25 04:41:49	91.51	56.8	56.8	96.8	0.0	0.16	nan
7	7144	DISCHARGING	29-10-25 05:03:05	29-10-25 05:03:27	0.36	56.8	56.8	96.8	0.0	0.92	nan
7	7145	DISCHARGING	29-10-25 05:50:07	29-10-25 06:21:07	31.0	56.8	53.6	96.8	13.1	5.07	38.66
7	7146	CHARGING	29-10-25 06:21:08	29-10-25 07:43:31	82.37	53.6	100.0	96.8	189.99	205.04	92.08
7	7147	DISCHARGING	29-10-25 07:43:32	29-10-25 11:36:05	232.55	100.0	96.0	96.8	16.38	15.09	92.15

Vehicle 7 — Session SoC Accuracy (Page 9/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
7	7149	DISCHARGING	29-10-25 15:26:24	29-10-25 20:44:12	317.79	96.0	59.2	96.8	150.68	151.83	99.24
7	7150	CHARGING	29-10-25 20:44:13	29-10-25 21:12:46	28.56	59.2	80.0	96.8	85.17	91.92	92.07
7	7151	DISCHARGING	29-10-25 21:12:47	30-10-25 01:35:16	262.47	80.0	42.0	96.8	155.6	156.0	99.74
7	6826	DISCHARGING	30-09-25 18:30:01	30-09-25 21:04:46	154.76	83.6	62.4	98.0	87.88	91.56	95.81
7	6827	CHARGING	30-09-25 21:04:47	30-09-25 21:27:37	22.83	62.4	80.0	98.0	72.96	79.53	90.99
7	6828	DISCHARGING	30-09-25 21:27:38	01-10-25 02:17:25	289.78	80.0	41.2	98.0	160.84	158.31	98.42
7	7152	CHARGING	30-10-25 01:35:17	30-10-25 03:59:57	144.67	42.0	100.0	96.8	237.49	257.52	91.57
7	7153	DISCHARGING	30-10-25 03:59:58	30-10-25 09:15:54	315.94	100.0	51.2	96.8	199.82	198.15	99.16
7	7154	CHARGING	30-10-25 09:15:56	30-10-25 09:56:14	40.31	51.2	80.0	96.8	117.93	138.83	82.27
7	7155	DISCHARGING	30-10-25 09:56:15	30-10-25 15:23:45	327.51	80.0	47.2	96.8	134.3	121.41	90.4
7	7156	CHARGING	30-10-25 15:23:47	30-10-25 15:24:40	0.88	47.2	47.2	96.8	0.0	0.19	nan
7	7158	CHARGING	30-10-25 15:25:11	30-10-25 17:04:47	99.61	47.2	100.0	96.8	216.2	213.04	98.54
7	7160	DISCHARGING	30-10-25 17:45:52	30-10-25 17:49:38	3.77	100.0	99.6	96.8	1.64	0.11	6.59
7	7162	DISCHARGING	31-10-25 04:10:06	31-10-25 09:04:30	294.41	99.6	60.0	96.8	162.15	164.6	98.49
7	7163	CHARGING	31-10-25 09:04:32	31-10-25 09:18:36	14.06	60.0	69.2	96.8	37.67	41.31	90.34
7	7164	CHARGING	31-10-25 09:24:38	31-10-25 09:40:32	15.9	69.2	80.0	96.8	44.22	50.31	86.23
7	7166	DISCHARGING	31-10-25 09:49:05	31-10-25 14:11:50	262.75	80.0	38.4	96.8	170.34	163.33	95.89
7	7167	CHARGING	31-10-25 14:11:51	31-10-25 15:59:16	107.41	38.4	100.0	96.8	252.23	268.06	93.72
7	7170	DISCHARGING	31-10-25 16:00:53	31-10-25 18:29:59	149.1	100.0	94.0	96.8	24.57	20.5	83.42

Vehicle 9 — Session SoC Accuracy (Page 1/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
9	7174	CHARGING	01-10-25 01:41:54	01-10-25 02:56:14	74.35	42.0	100.0	98.0	240.43	253.58	94.53
9	7176	DISCHARGING	01-10-25 03:17:07	01-10-25 09:41:54	384.78	100.0	55.6	98.0	184.06	183.38	99.63
9	7177	CHARGING	01-10-25 09:41:55	01-10-25 10:16:01	34.1	55.6	80.0	98.0	101.15	118.18	83.16
9	7178	DISCHARGING	01-10-25 10:16:02	01-10-25 15:41:11	325.15	80.0	42.4	98.0	155.87	152.2	97.65
9	7179	CHARGING	01-10-25 15:41:12	01-10-25 17:08:19	87.11	42.4	100.0	98.0	238.78	240.36	99.34
9	7180	DISCHARGING	01-10-25 17:08:20	01-10-25 21:15:56	247.6	100.0	68.0	98.0	132.65	135.92	97.54
9	7183	CHARGING	01-10-25 21:17:02	01-10-25 21:34:54	17.87	68.0	80.0	98.0	49.74	54.91	89.61
9	7184	DISCHARGING	01-10-25 21:34:55	02-10-25 03:14:23	339.46	80.0	41.2	98.0	160.84	162.98	98.67
9	7185	CHARGING	02-10-25 03:14:24	02-10-25 07:33:47	259.39	41.2	100.0	98.0	243.75	257.04	94.55
9	7188	DISCHARGING	02-10-25 14:41:42	02-10-25 14:45:01	3.31	100.0	100.0	98.0	0.0	0.41	nan
9	7189	DISCHARGING	02-10-25 14:50:16	02-10-25 14:51:24	1.13	100.0	100.0	98.0	0.0	0.0	nan
9	7190	DISCHARGING	02-10-25 15:35:59	02-10-25 15:39:28	3.49	100.0	99.6	98.0	1.66	0.02	1.48
9	7191	DISCHARGING	02-10-25 16:24:27	02-10-25 21:23:18	298.85	99.6	58.0	98.0	172.45	172.29	99.91
9	7192	CHARGING	02-10-25 21:23:19	02-10-25 21:54:15	30.93	58.0	80.0	98.0	91.2	102.45	87.66
9	7193	DISCHARGING	02-10-25 21:54:16	03-10-25 01:28:52	214.59	80.0	44.0	98.0	149.23	149.86	99.58
9	7194	CHARGING	03-10-25 01:28:53	03-10-25 02:54:19	85.44	44.0	100.0	98.0	232.14	238.74	97.16
9	7198	DISCHARGING	03-10-25 04:00:54	03-10-25 09:08:02	307.13	100.0	55.2	98.0	185.71	181.1	97.52
9	7199	CHARGING	03-10-25 09:08:03	03-10-25 09:49:26	41.39	55.2	80.0	98.0	102.81	117.2	86.0
9	7200	DISCHARGING	03-10-25 09:49:27	03-10-25 15:15:19	325.87	80.0	37.2	98.0	177.42	177.9	99.73
9	7201	CHARGING	03-10-25 15:15:20	03-10-25 16:36:45	81.42	37.2	100.0	98.0	260.33	266.51	97.63
9	7202	DISCHARGING	03-10-25 16:36:46	03-10-25 21:49:10	312.41	100.0	62.0	98.0	157.52	154.47	98.06
9	7203	CHARGING	03-10-25 21:49:11	03-10-25 22:11:43	22.53	62.0	80.0	98.0	74.62	81.16	91.23
9	7204	DISCHARGING	03-10-25 22:11:44	04-10-25 02:47:52	276.14	80.0	41.6	98.0	159.18	161.49	98.55
9	7207	CHARGING	04-10-25 02:48:16	04-10-25 04:09:40	81.41	41.6	100.0	98.0	242.09	252.74	95.6
9	7211	DISCHARGING	04-10-25 04:42:36	04-10-25 06:19:36	97.0	100.0	92.0	98.0	33.16	30.77	92.78
9	7212	DISCHARGING	04-10-25 06:25:54	04-10-25 09:25:42	179.81	92.0	55.6	98.0	150.89	156.52	96.27
9	7213	CHARGING	04-10-25 09:25:44	04-10-25 09:53:31	27.78	55.6	76.0	98.0	84.57	90.01	93.56
9	7214	DISCHARGING	04-10-25 09:53:33	04-10-25 14:43:08	289.59	76.0	36.4	98.0	164.16	167.67	97.86
9	7215	CHARGING	04-10-25 14:43:09	04-10-25 16:14:27	91.29	36.4	100.0	98.0	263.65	278.93	94.2
9	7216	DISCHARGING	04-10-25 16:14:28	05-10-25 01:39:12	564.74	100.0	42.0	98.0	240.43	234.5	97.53

Vehicle 9 — Session SoC Accuracy (Page 2/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
9	7217	CHARGING	05-10-25 01:39:13	05-10-25 03:02:50	83.62	42.0	100.0	98.0	240.43	253.74	94.46
9	7220	DISCHARGING	05-10-25 03:04:38	05-10-25 08:22:34	317.93	100.0	59.2	98.0	169.13	167.16	98.83
9	7221	CHARGING	05-10-25 08:24:07	05-10-25 08:53:22	29.25	59.2	80.0	98.0	86.22	96.41	88.19
9	7222	DISCHARGING	05-10-25 08:53:23	05-10-25 14:21:21	327.97	80.0	37.2	98.0	177.42	176.15	99.28
9	7223	CHARGING	05-10-25 14:21:22	05-10-25 15:43:44	82.36	37.2	100.0	98.0	260.33	270.89	95.94
9	7224	DISCHARGING	05-10-25 15:43:45	05-10-25 20:47:24	303.65	100.0	60.0	98.0	165.82	164.03	98.93
9	7225	CHARGING	05-10-25 20:47:25	05-10-25 21:18:35	31.16	60.0	80.0	98.0	82.91	95.34	85.0
9	7226	DISCHARGING	05-10-25 21:18:36	06-10-25 01:39:30	260.91	80.0	42.4	98.0	155.87	157.58	98.9
9	7227	CHARGING	06-10-25 01:39:53	06-10-25 02:54:52	74.98	42.4	100.0	98.0	238.78	245.15	97.33
9	7228	DISCHARGING	06-10-25 02:54:53	06-10-25 08:10:43	315.84	100.0	57.2	98.0	177.42	174.16	98.16
9	7229	CHARGING	06-10-25 08:10:44	06-10-25 08:39:05	28.35	57.2	74.8	98.0	72.96	78.26	92.73
9	7230	DISCHARGING	06-10-25 08:39:06	06-10-25 14:11:22	332.26	74.8	33.2	97.89	172.25	167.2	97.06
9	7231	CHARGING	06-10-25 14:11:23	06-10-25 15:30:45	79.36	33.2	95.2	97.6	255.97	290.68	86.44
9	7232	DISCHARGING	06-10-25 15:30:48	06-10-25 21:02:40	331.87	95.2	57.2	97.6	156.88	159.96	98.04
9	7233	CHARGING	06-10-25 21:02:41	06-10-25 21:25:38	22.95	57.2	75.6	97.6	75.96	80.96	93.43
9	7234	DISCHARGING	06-10-25 21:25:40	07-10-25 01:47:54	262.24	75.6	36.8	97.6	160.18	159.08	99.31
9	7235	CHARGING	07-10-25 01:47:55	07-10-25 04:47:30	179.57	36.8	100.0	97.6	260.92	260.08	99.68
9	7238	DISCHARGING	07-10-25 04:48:12	07-10-25 09:01:49	253.61	100.0	59.2	97.6	168.44	172.8	97.41
9	7239	CHARGING	07-10-25 09:01:50	07-10-25 09:29:54	28.07	59.2	80.0	97.6	85.87	92.32	92.49
9	7240	DISCHARGING	07-10-25 09:29:56	07-10-25 14:51:26	321.51	80.0	44.4	97.6	146.97	150.16	97.83
9	7242	CHARGING	07-10-25 15:23:30	07-10-25 16:40:57	77.44	44.4	100.0	97.6	229.54	243.97	93.71
9	7243	DISCHARGING	07-10-25 16:40:58	08-10-25 02:24:11	583.22	100.0	43.2	97.6	234.5	230.67	98.37
9	7244	DISCHARGING	08-10-25 02:46:26	08-10-25 04:27:36	101.16	43.2	43.2	97.6	0.0	1.02	nan
9	7245	DISCHARGING	08-10-25 05:24:43	08-10-25 05:29:13	4.5	43.2	43.2	97.6	0.0	6.38	nan
9	7246	DISCHARGING	08-10-25 06:28:27	08-10-25 06:39:53	11.44	43.2	42.8	97.6	1.65	0.18	10.85
9	7247	CHARGING	08-10-25 06:39:54	08-10-25 07:52:41	72.79	42.8	80.0	97.6	153.58	167.14	91.17
9	7249	CHARGING	08-10-25 07:52:43	08-10-25 08:23:02	30.31	80.0	100.0	97.6	82.57	81.42	98.61
9	7253	DISCHARGING	08-10-25 08:44:35	08-10-25 08:50:31	5.92	100.0	99.6	97.6	1.65	2.55	45.73
9	7254	DISCHARGING	08-10-25 09:33:48	08-10-25 12:26:26	172.63	99.6	98.0	97.6	6.61	3.0	45.38
9	7255	DISCHARGING	08-10-25 14:26:33	08-10-25 16:01:05	94.52	98.0	95.2	97.6	11.56	7.4	64.05

Vehicle 9 — Session SoC Accuracy (Page 3/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
9	7256	DISCHARGING	08-10-25 16:08:44	08-10-25 21:08:31	299.79	95.2	54.8	97.6	166.79	161.82	97.02
9	7257	CHARGING	08-10-25 21:08:32	08-10-25 21:44:05	35.55	54.8	80.0	97.6	104.04	120.59	84.09
9	7258	DISCHARGING	08-10-25 21:44:06	09-10-25 02:02:00	257.89	80.0	36.8	97.6	178.35	179.42	99.4
9	7259	DISCHARGING	09-10-25 02:44:00	09-10-25 02:46:34	2.57	36.8	36.8	97.6	0.0	0.02	nan
9	7260	CHARGING	09-10-25 02:46:35	09-10-25 09:28:19	401.73	36.8	100.0	97.6	260.92	263.74	98.92
9	7261	DISCHARGING	09-10-25 09:28:20	09-10-25 10:11:43	43.39	100.0	98.4	97.6	6.61	2.69	40.66
9	7262	DISCHARGING	09-10-25 11:14:01	09-10-25 11:26:38	12.61	98.4	98.4	97.6	0.0	0.51	nan
9	7263	DISCHARGING	09-10-25 11:39:30	09-10-25 14:06:24	146.9	98.4	96.8	97.6	6.61	5.2	78.65
9	7264	DISCHARGING	09-10-25 14:32:58	09-10-25 20:53:07	380.16	96.8	55.2	97.6	171.74	171.75	100.0
9	7265	CHARGING	09-10-25 20:53:09	09-10-25 22:21:02	87.89	55.2	70.4	97.6	62.75	65.36	95.85
9	7266	DISCHARGING	09-10-25 22:21:03	10-10-25 02:11:10	230.11	70.4	36.4	97.6	140.37	142.45	98.52
9	7267	CHARGING	10-10-25 02:11:13	10-10-25 02:11:16	0.05	36.4	36.4	97.6	0.0	0.01	nan
9	7269	CHARGING	10-10-25 02:11:46	10-10-25 04:14:25	122.66	36.4	100.0	97.6	262.57	278.51	93.93
9	7270	DISCHARGING	10-10-25 04:14:26	10-10-25 09:28:18	313.86	100.0	58.8	97.6	170.09	174.5	97.41
9	7271	CHARGING	10-10-25 09:28:19	10-10-25 09:53:23	25.07	58.8	78.0	97.6	79.27	84.81	93.01
9	7272	DISCHARGING	10-10-25 09:53:24	10-10-25 15:45:41	352.29	78.0	38.0	97.6	165.14	161.12	97.56
9	7273	CHARGING	10-10-25 15:45:42	10-10-25 16:39:45	54.04	38.0	80.4	97.6	175.05	206.06	82.28
9	7274	DISCHARGING	10-10-25 16:39:49	10-10-25 21:52:55	313.11	80.4	41.2	97.6	161.84	161.85	99.99
9	7275	CHARGING	10-10-25 21:52:56	10-10-25 22:34:20	41.39	41.2	76.8	97.6	146.97	156.17	93.74
9	7276	DISCHARGING	10-10-25 22:34:21	11-10-25 03:00:28	266.13	76.8	37.6	97.6	161.84	158.05	97.66
9	7277	CHARGING	11-10-25 03:00:29	11-10-25 04:28:52	88.37	37.6	100.0	97.6	257.62	254.05	98.61
9	7278	DISCHARGING	11-10-25 04:28:53	11-10-25 09:28:24	299.52	100.0	56.8	97.6	178.35	181.54	98.21
9	7279	CHARGING	11-10-25 09:28:25	11-10-25 09:58:13	29.8	56.8	80.0	97.6	95.78	108.58	86.64
9	7280	DISCHARGING	11-10-25 09:58:15	11-10-25 16:12:09	373.91	80.0	35.2	97.6	184.96	182.58	98.72
9	7281	CHARGING	11-10-25 16:12:10	11-10-25 17:27:41	75.51	35.2	97.2	97.6	255.97	269.97	94.53
9	7282	DISCHARGING	11-10-25 17:27:42	11-10-25 22:22:01	294.31	97.2	56.0	97.6	170.09	166.18	97.7
9	7283	CHARGING	11-10-25 22:22:17	11-10-25 22:54:27	32.17	56.0	80.0	97.6	99.08	108.52	90.48
9	7284	DISCHARGING	11-10-25 22:54:28	12-10-25 03:08:06	253.63	80.0	42.0	97.6	156.88	158.93	98.7
9	7285	CHARGING	12-10-25 03:08:07	12-10-25 04:28:30	80.37	42.0	100.0	97.6	239.45	245.84	97.33
9	7286	DISCHARGING	12-10-25 04:28:31	12-10-25 09:12:13	283.71	100.0	54.4	97.6	188.26	193.47	97.23

Vehicle 9 — Session SoC Accuracy (Page 4/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
9	7287	CHARGING	12-10-25 09:12:41	12-10-25 09:47:50	35.15	54.4	80.0	97.6	105.69	122.38	84.2
9	7288	DISCHARGING	12-10-25 09:47:51	12-10-25 16:58:30	430.65	80.0	32.8	97.6	194.86	185.53	95.21
9	7289	CHARGING	12-10-25 16:58:49	12-10-25 18:05:29	66.66	32.8	86.8	97.6	222.94	250.26	87.75
9	7290	DISCHARGING	12-10-25 18:05:30	12-10-25 22:16:50	251.33	86.8	43.6	97.6	178.35	179.92	99.12
9	7291	CHARGING	12-10-25 22:17:40	12-10-25 22:30:43	13.06	43.6	46.0	97.6	9.91	11.46	84.32
9	7293	CHARGING	12-10-25 22:30:46	12-10-25 22:31:54	1.14	46.0	46.0	97.6	0.0	0.32	nan
9	7294	DISCHARGING	12-10-25 22:31:55	12-10-25 22:33:53	1.96	46.0	46.0	97.6	0.0	0.02	nan
9	7295	CHARGING	12-10-25 22:34:45	12-10-25 23:22:34	47.82	46.0	82.4	97.6	150.28	157.23	95.37
9	7296	DISCHARGING	12-10-25 23:22:35	13-10-25 05:26:26	363.84	82.4	35.2	97.6	194.86	190.62	97.82
9	7297	CHARGING	13-10-25 05:27:21	13-10-25 06:51:16	83.93	35.2	100.0	97.6	267.53	266.02	99.44
9	7298	DISCHARGING	13-10-25 06:51:17	13-10-25 07:11:00	19.71	100.0	99.6	97.6	1.65	0.17	10.48
9	7299	DISCHARGING	13-10-25 07:45:57	13-10-25 10:49:15	183.31	99.6	92.8	97.6	28.07	21.44	76.38
9	7301	DISCHARGING	13-10-25 11:18:51	13-10-25 11:26:06	7.25	92.8	92.8	97.6	0.0	0.12	nan
9	7302	CHARGING	13-10-25 11:26:07	13-10-25 12:15:57	49.83	92.8	100.0	97.6	29.72	30.42	97.66
9	7305	DISCHARGING	13-10-25 13:22:48	13-10-25 13:24:23	1.58	100.0	99.6	97.6	1.65	0.1	6.06
9	7306	DISCHARGING	13-10-25 14:50:22	13-10-25 21:04:52	374.51	99.6	58.4	97.6	170.09	168.98	99.34
9	7307	CHARGING	13-10-25 21:04:53	13-10-25 21:31:37	26.74	58.4	79.2	97.6	85.87	93.63	90.96
9	7308	DISCHARGING	13-10-25 21:31:38	14-10-25 01:44:37	252.97	79.2	41.2	97.6	156.88	157.0	99.92
9	7309	CHARGING	14-10-25 01:45:09	14-10-25 04:02:04	136.91	41.2	100.0	97.6	242.76	254.33	95.23
9	7314	DISCHARGING	14-10-25 04:51:20	14-10-25 05:54:34	63.24	100.0	98.0	97.6	8.26	3.85	46.61
9	7315	DISCHARGING	14-10-25 10:51:51	14-10-25 11:21:58	30.12	98.0	97.2	97.6	3.3	2.04	61.77
9	7316	DISCHARGING	14-10-25 12:38:45	14-10-25 14:50:03	131.31	97.2	97.2	97.6	0.0	0.24	nan
9	7318	DISCHARGING	14-10-25 15:25:06	14-10-25 21:04:58	339.86	97.2	58.8	97.6	158.53	160.18	98.96
9	7319	CHARGING	14-10-25 21:04:59	14-10-25 21:30:10	25.17	58.8	80.0	97.6	87.52	93.53	93.13
9	7320	DISCHARGING	14-10-25 21:30:11	15-10-25 02:20:46	290.59	80.0	39.6	97.6	166.79	170.06	98.04
9	7322	DISCHARGING	15-10-25 03:05:13	15-10-25 03:16:04	10.84	39.6	39.6	97.6	0.0	0.45	nan
9	7323	DISCHARGING	15-10-25 03:38:05	15-10-25 04:20:52	42.77	39.6	38.0	97.6	6.61	5.09	77.12
9	7324	CHARGING	15-10-25 04:20:54	15-10-25 05:15:54	55.0	38.0	38.0	97.6	0.0	0.28	nan
9	7326	CHARGING	15-10-25 05:15:55	15-10-25 06:12:40	56.75	37.6	37.6	97.6	0.0	0.08	nan
9	7328	CHARGING	15-10-25 06:12:42	15-10-25 07:52:19	99.62	37.6	100.0	97.6	257.62	267.7	96.09

Vehicle 9 — Session SoC Accuracy (Page 5/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
9	7330	CHARGING	15-10-25 07:52:22	15-10-25 07:55:02	2.67	100.0	100.0	97.6	0.0	0.73	nan
9	7331	DISCHARGING	15-10-25 07:55:03	15-10-25 08:21:50	26.78	100.0	100.0	97.6	0.0	0.01	nan
9	7332	DISCHARGING	15-10-25 09:05:04	15-10-25 11:31:13	146.14	100.0	96.0	97.6	16.51	11.54	69.91
9	7333	DISCHARGING	15-10-25 12:39:34	15-10-25 13:13:42	34.13	96.0	94.8	97.6	4.95	1.9	38.44
9	7334	CHARGING	15-10-25 13:15:04	15-10-25 13:24:52	9.8	94.8	100.0	97.6	21.47	20.15	93.87
9	7336	DISCHARGING	15-10-25 13:48:33	15-10-25 20:08:05	379.53	100.0	56.8	97.6	178.35	176.79	99.13
9	7337	CHARGING	15-10-25 20:09:32	15-10-25 20:39:20	29.8	56.8	80.0	97.6	95.78	106.94	88.35
9	7338	DISCHARGING	15-10-25 20:39:22	16-10-25 02:07:39	328.28	80.0	43.2	97.6	151.93	145.04	95.47
9	7339	CHARGING	16-10-25 02:07:40	16-10-25 03:25:12	77.54	43.2	100.0	97.6	234.5	238.8	98.17
9	7346	DISCHARGING	16-10-25 15:21:57	16-10-25 20:49:47	327.83	100.0	59.6	97.6	166.79	167.47	99.59
9	7347	CHARGING	16-10-25 20:50:24	16-10-25 20:52:28	2.06	59.6	60.0	97.6	1.65	1.33	80.29
9	7349	DISCHARGING	16-10-25 20:58:18	16-10-25 21:04:09	5.86	60.0	59.6	97.6	1.65	0.36	21.73
9	7350	CHARGING	16-10-25 21:04:54	16-10-25 21:30:25	25.52	59.6	80.0	97.6	84.22	93.0	89.58
9	7351	DISCHARGING	16-10-25 21:30:26	17-10-25 01:21:14	230.79	80.0	45.6	97.6	142.02	145.15	97.8
9	7352	CHARGING	17-10-25 01:22:06	17-10-25 03:09:17	107.19	45.6	100.0	97.6	224.59	235.55	95.12
9	7353	DISCHARGING	17-10-25 03:09:19	17-10-25 08:13:05	303.77	100.0	54.0	97.6	189.91	189.79	99.94
9	7354	CHARGING	17-10-25 08:13:06	17-10-25 08:45:05	31.99	54.0	80.0	97.6	107.34	116.34	91.61
9	7355	DISCHARGING	17-10-25 08:45:07	17-10-25 14:38:42	353.6	80.0	35.6	97.6	183.3	188.15	97.36
9	7356	CHARGING	17-10-25 14:38:43	17-10-25 15:49:04	70.34	35.6	91.2	97.6	229.54	266.97	83.7
9	7357	DISCHARGING	17-10-25 15:49:05	17-10-25 20:58:54	309.83	91.2	54.0	97.6	153.58	156.36	98.19
9	7358	CHARGING	17-10-25 21:00:00	17-10-25 21:27:07	27.13	54.0	75.2	97.6	87.52	93.3	93.41
9	7359	DISCHARGING	17-10-25 21:27:09	18-10-25 02:18:22	291.23	75.2	40.4	97.6	143.67	147.22	97.53
9	7360	CHARGING	18-10-25 02:18:23	18-10-25 03:43:32	85.15	40.4	100.0	97.6	246.06	235.52	95.72
9	7361	DISCHARGING	18-10-25 03:43:33	18-10-25 09:22:09	338.6	100.0	48.8	97.6	211.38	214.89	98.34
9	7362	CHARGING	18-10-25 09:22:10	18-10-25 09:59:51	37.69	48.8	80.0	97.6	128.81	141.49	90.16
9	7363	DISCHARGING	18-10-25 09:59:53	18-10-25 15:21:49	321.93	80.0	32.4	97.6	196.52	195.44	99.45
9	7364	CHARGING	18-10-25 15:21:50	18-10-25 16:48:33	86.72	32.4	100.0	97.6	279.08	287.0	97.16
9	7365	DISCHARGING	18-10-25 16:48:34	18-10-25 21:57:06	308.53	100.0	58.0	97.6	173.4	175.2	98.96
9	7366	CHARGING	18-10-25 21:57:07	18-10-25 22:26:12	29.09	58.0	80.0	97.6	90.83	111.6	77.13
9	7367	DISCHARGING	18-10-25 22:26:16	19-10-25 02:59:30	273.24	80.0	36.4	97.6	180.0	180.09	99.95

Vehicle 9 — Session SoC Accuracy (Page 6/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
9	7368	CHARGING	19-10-25 02:59:33	19-10-25 04:33:11	93.62	36.4	100.0	97.6	262.57	263.52	99.64
9	7369	DISCHARGING	19-10-25 04:33:12	19-10-25 09:05:13	272.01	100.0	56.8	97.6	178.35	171.86	96.36
9	7370	CHARGING	19-10-25 09:06:03	19-10-25 09:39:23	33.34	56.8	80.0	97.6	95.78	108.41	86.82
9	7371	DISCHARGING	19-10-25 09:39:24	19-10-25 15:27:25	348.02	80.0	37.6	97.6	175.05	171.36	97.89
9	7372	CHARGING	19-10-25 15:27:26	19-10-25 15:30:12	2.76	37.6	37.6	97.6	0.0	0.24	nan
9	7374	CHARGING	19-10-25 15:30:14	19-10-25 16:51:56	81.7	37.6	100.0	97.6	257.62	263.61	97.67
9	7375	DISCHARGING	19-10-25 16:51:57	19-10-25 21:56:07	304.18	100.0	66.4	97.6	138.72	137.14	98.86
9	7376	CHARGING	19-10-25 21:56:08	19-10-25 22:10:34	14.43	66.4	77.6	97.6	46.24	49.34	93.29
9	7377	DISCHARGING	19-10-25 22:10:35	20-10-25 04:01:32	350.95	77.6	42.0	97.44	146.73	146.04	99.53
9	7378	DISCHARGING	20-10-25 05:02:54	20-10-25 06:05:50	62.94	42.0	40.0	97.2	8.22	6.98	84.86
9	7379	CHARGING	20-10-25 06:05:52	20-10-25 07:34:23	88.52	40.0	100.0	97.2	246.69	263.51	93.18
9	7380	DISCHARGING	20-10-25 07:34:24	20-10-25 07:34:24	0.01	100.0	100.0	97.2	0.0	0.0	nan
9	7382	DISCHARGING	20-10-25 08:06:13	20-10-25 11:28:35	202.36	100.0	97.6	97.2	9.87	8.44	85.52
9	7384	CHARGING	20-10-25 13:41:33	20-10-25 13:57:06	15.55	97.6	100.0	97.2	9.87	11.78	80.58
9	7385	DISCHARGING	20-10-25 13:57:07	20-10-25 20:26:17	389.16	100.0	59.6	97.2	166.11	157.4	94.76
9	7386	CHARGING	20-10-25 20:26:18	20-10-25 20:48:52	22.57	59.6	77.6	97.2	74.01	78.69	93.67
9	7387	DISCHARGING	20-10-25 20:48:53	21-10-25 00:54:56	246.05	77.6	36.8	97.2	167.75	172.08	97.42
9	7388	CHARGING	21-10-25 00:54:57	21-10-25 00:58:24	3.44	36.8	36.8	97.2	0.0	0.02	nan
9	7390	CHARGING	21-10-25 00:58:26	21-10-25 02:15:59	77.55	36.8	96.0	97.2	243.4	267.89	89.94
9	7392	CHARGING	21-10-25 02:16:01	21-10-25 02:59:51	43.83	96.0	100.0	97.2	16.45	5.63	34.25
9	7393	DISCHARGING	21-10-25 02:59:52	21-10-25 08:12:49	312.96	100.0	56.8	97.2	177.62	176.03	99.11
9	7394	CHARGING	21-10-25 08:12:50	21-10-25 08:43:09	30.32	56.8	80.0	97.2	95.39	104.4	90.56
9	7395	DISCHARGING	21-10-25 08:43:10	21-10-25 13:40:03	296.88	80.0	42.0	97.2	156.24	157.1	99.45
9	7396	CHARGING	21-10-25 13:40:04	21-10-25 14:39:07	59.06	42.0	83.6	97.2	171.04	192.67	87.35
9	7397	DISCHARGING	21-10-25 14:39:11	21-10-25 20:10:44	331.55	83.6	42.4	97.2	169.4	167.63	98.95
9	7398	CHARGING	21-10-25 20:10:45	21-10-25 20:58:34	47.83	42.4	77.2	97.2	143.08	150.05	95.13
9	7399	DISCHARGING	21-10-25 20:58:35	22-10-25 00:57:30	238.91	77.2	36.4	97.2	167.75	172.44	97.21
9	7400	CHARGING	22-10-25 00:57:31	22-10-25 03:09:13	131.71	36.4	100.0	97.2	261.5	264.46	98.86
9	7401	DISCHARGING	22-10-25 03:09:15	22-10-25 08:38:33	329.3	100.0	56.8	97.2	177.62	176.55	99.4
9	7402	CHARGING	22-10-25 08:38:34	22-10-25 09:08:26	29.87	56.8	80.0	97.2	95.39	106.16	88.7

Vehicle 9 — Session SoC Accuracy (Page 7/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
9	7403	DISCHARGING	22-10-25 09:08:27	22-10-25 14:01:18	292.85	80.0	42.4	97.2	154.6	155.19	99.61
9	7404	CHARGING	22-10-25 14:01:20	22-10-25 15:03:09	61.81	42.4	90.4	97.2	197.36	216.8	90.15
9	7405	DISCHARGING	22-10-25 15:03:10	22-10-25 20:23:13	320.06	90.4	48.8	97.2	171.04	173.67	98.46
9	7406	CHARGING	22-10-25 20:23:14	22-10-25 21:03:54	40.66	48.8	80.0	97.2	128.28	141.06	90.04
9	7407	DISCHARGING	22-10-25 21:03:55	23-10-25 01:06:44	242.81	80.0	40.4	97.2	162.82	167.34	97.22
9	7408	CHARGING	23-10-25 01:06:45	23-10-25 03:02:11	115.43	40.4	100.0	97.2	245.05	249.35	98.25
9	7409	DISCHARGING	23-10-25 03:02:12	23-10-25 08:17:10	314.97	100.0	57.2	97.2	175.98	181.52	96.85
9	7410	CHARGING	23-10-25 08:17:11	23-10-25 08:48:01	30.83	57.2	80.0	97.2	93.74	108.85	83.89
9	7411	DISCHARGING	23-10-25 08:48:02	23-10-25 13:57:56	309.9	80.0	46.8	97.2	136.5	137.68	99.14
9	7412	CHARGING	23-10-25 13:57:57	23-10-25 15:02:01	64.07	46.8	95.2	97.2	199.0	218.76	90.07
9	7413	DISCHARGING	23-10-25 15:02:03	23-10-25 20:01:44	299.68	95.2	52.0	97.2	177.62	178.88	99.29
9	7414	CHARGING	23-10-25 20:01:45	23-10-25 20:36:04	34.32	52.0	80.0	97.2	115.12	128.38	88.49
9	7415	DISCHARGING	23-10-25 20:36:05	24-10-25 00:29:34	233.49	80.0	40.0	97.2	164.46	165.96	99.09
9	7416	CHARGING	24-10-25 00:29:35	24-10-25 02:19:03	109.46	40.0	100.0	97.2	246.69	248.79	99.15
9	7418	DISCHARGING	24-10-25 03:03:29	24-10-25 08:22:42	319.22	100.0	57.2	97.2	175.98	183.22	95.88
9	7419	CHARGING	24-10-25 08:23:58	24-10-25 08:54:59	31.02	57.2	80.0	97.2	93.74	103.91	89.16
9	7420	DISCHARGING	24-10-25 08:55:00	24-10-25 13:50:02	295.03	80.0	46.0	97.2	139.79	140.76	99.31
9	7421	CHARGING	24-10-25 13:50:05	24-10-25 13:52:23	2.31	46.0	46.0	97.2	0.0	0.73	nan
9	7427	CHARGING	24-10-25 13:57:15	24-10-25 15:06:13	68.97	46.0	94.0	97.2	197.36	221.17	87.93
9	7428	DISCHARGING	24-10-25 15:06:16	24-10-25 20:06:21	300.09	94.0	54.4	97.2	162.82	164.9	98.72
9	7429	CHARGING	24-10-25 20:06:22	24-10-25 20:31:20	24.97	54.4	55.2	97.2	3.29	3.04	92.29
9	7430	DISCHARGING	24-10-25 20:31:22	24-10-25 20:35:44	4.37	55.2	55.2	97.2	0.0	0.03	nan
9	7431	CHARGING	24-10-25 20:36:12	24-10-25 21:00:54	24.7	55.2	75.6	97.2	83.88	92.6	89.6
9	7432	DISCHARGING	24-10-25 21:00:55	25-10-25 01:44:55	284.0	75.6	36.4	97.2	161.17	161.67	99.69
9	7433	CHARGING	25-10-25 01:45:57	25-10-25 03:04:22	78.42	36.4	100.0	97.2	261.5	264.07	99.02
9	7434	DISCHARGING	25-10-25 03:12:19	25-10-25 08:35:43	323.4	100.0	56.8	97.2	177.62	179.31	99.05
9	7435	CHARGING	25-10-25 08:35:44	25-10-25 09:04:43	28.98	56.8	80.0	97.2	95.39	108.54	86.22
9	7436	DISCHARGING	25-10-25 09:04:50	25-10-25 13:45:21	280.51	80.0	43.6	97.2	149.66	144.68	96.67
9	7437	CHARGING	25-10-25 13:46:36	25-10-25 14:55:19	68.71	43.6	96.4	97.2	217.09	233.25	92.56
9	7438	DISCHARGING	25-10-25 14:55:20	25-10-25 20:08:24	313.06	96.4	56.0	97.2	166.11	166.17	99.96

Vehicle 9 — Session SoC Accuracy (Page 8/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
9	7439	CHARGING	25-10-25 20:08:56	25-10-25 20:43:41	34.75	56.0	80.0	97.2	98.68	114.02	84.46
9	7440	DISCHARGING	25-10-25 20:43:42	26-10-25 00:46:55	243.21	80.0	39.6	97.2	166.11	165.18	99.44
9	7441	CHARGING	26-10-25 00:46:56	26-10-25 02:59:13	132.28	39.6	100.0	97.2	248.34	245.52	98.87
9	7442	DISCHARGING	26-10-25 02:59:14	26-10-25 08:31:33	332.32	100.0	50.4	97.2	203.93	201.7	98.91
9	7443	CHARGING	26-10-25 08:31:34	26-10-25 09:09:24	37.84	50.4	80.0	97.2	121.7	133.57	90.25
9	7444	DISCHARGING	26-10-25 09:09:27	26-10-25 13:23:54	254.45	80.0	38.8	97.2	169.4	164.31	97.0
9	7445	CHARGING	26-10-25 13:23:55	26-10-25 14:50:45	86.82	38.8	92.4	97.2	220.38	251.85	85.72
9	7446	DISCHARGING	26-10-25 14:50:48	26-10-25 20:29:20	338.53	92.4	52.4	97.2	164.46	155.86	94.77
9	7447	CHARGING	26-10-25 20:29:21	26-10-25 20:58:55	29.56	52.4	75.6	97.2	95.39	102.4	92.65
9	7448	DISCHARGING	26-10-25 20:58:56	27-10-25 01:17:25	258.48	75.6	34.8	97.2	167.75	166.81	99.44
9	7449	CHARGING	27-10-25 01:17:26	27-10-25 02:59:51	102.42	34.8	100.0	97.2	268.07	257.9	96.21
9	7450	DISCHARGING	27-10-25 02:59:52	27-10-25 08:30:39	330.77	100.0	61.2	97.2	159.53	158.18	99.16
9	7451	CHARGING	27-10-25 08:30:40	27-10-25 08:55:51	25.18	61.2	80.0	97.2	77.3	76.2	98.58
9	7452	DISCHARGING	27-10-25 08:55:52	27-10-25 12:46:33	230.69	80.0	46.4	97.2	138.15	139.61	98.94
9	7453	DISCHARGING	27-10-25 12:51:44	27-10-25 13:36:56	45.21	46.4	42.4	97.2	16.45	16.21	98.58
9	7454	CHARGING	27-10-25 13:36:57	27-10-25 14:54:14	77.27	42.4	88.8	97.2	190.78	223.89	82.64
9	7456	CHARGING	27-10-25 14:54:16	27-10-25 14:56:27	2.18	88.8	90.0	97.2	4.93	4.32	87.55
9	7457	DISCHARGING	27-10-25 14:56:30	27-10-25 20:00:55	304.42	90.0	48.8	97.2	169.4	169.48	99.95
9	7458	CHARGING	27-10-25 20:00:56	27-10-25 20:35:51	34.91	48.8	76.0	97.2	111.83	120.57	92.19
9	7459	DISCHARGING	27-10-25 20:35:52	28-10-25 01:00:51	264.99	76.0	40.0	97.2	148.02	152.07	97.26
9	7460	CHARGING	28-10-25 01:06:58	28-10-25 02:13:09	66.17	40.0	100.0	97.2	246.69	237.7	96.35
9	7461	DISCHARGING	28-10-25 06:32:49	28-10-25 06:33:07	0.3	100.0	100.0	97.2	0.0	0.05	nan
9	7462	DISCHARGING	29-10-25 08:09:30	29-10-25 08:19:39	10.15	100.0	100.0	97.2	0.0	0.9	nan
9	7463	DISCHARGING	29-10-25 16:01:59	29-10-25 21:22:33	320.57	100.0	61.6	97.2	157.88	157.88	100.0
9	7464	CHARGING	29-10-25 21:22:35	29-10-25 21:45:57	23.38	61.6	80.0	97.2	75.65	87.56	84.26
9	7465	DISCHARGING	29-10-25 21:46:01	30-10-25 02:09:28	263.45	80.0	37.6	97.2	174.33	176.16	98.95
9	7171	DISCHARGING	30-09-25 18:30:01	30-09-25 21:00:30	150.48	86.8	62.8	98.0	99.49	101.58	97.9
9	7172	CHARGING	30-09-25 21:00:31	30-09-25 21:25:10	24.66	62.8	80.0	98.0	71.3	78.87	89.38
9	7173	DISCHARGING	30-09-25 21:25:12	01-10-25 01:41:03	255.86	80.0	42.0	98.0	157.52	160.12	98.36
9	7466	CHARGING	30-10-25 02:09:29	30-10-25 02:27:26	17.95	37.6	44.0	97.2	26.31	27.73	94.62

Vehicle 9 — Session SoC Accuracy (Page 9/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
9	7468	CHARGING	30-10-25 02:27:28	30-10-25 04:09:40	102.21	44.0	100.0	97.2	230.25	235.48	97.73
9	7469	DISCHARGING	30-10-25 04:09:42	30-10-25 04:25:28	15.78	100.0	99.6	97.2	1.64	1.37	83.32
9	7471	DISCHARGING	30-10-25 04:48:26	30-10-25 08:53:51	245.41	99.6	59.6	97.2	164.46	162.5	98.81
9	7472	CHARGING	30-10-25 08:53:52	30-10-25 08:54:37	0.75	59.6	60.0	97.2	1.64	0.3	18.16
9	7474	CHARGING	30-10-25 08:55:03	30-10-25 09:22:59	27.92	60.0	80.0	97.2	82.23	90.12	90.41
9	7475	DISCHARGING	30-10-25 09:22:59	30-10-25 13:36:13	253.22	80.0	40.8	97.2	161.17	159.0	98.65
9	7476	CHARGING	30-10-25 13:37:27	30-10-25 17:20:31	223.06	40.8	100.0	97.2	243.4	252.95	96.08
9	7477	DISCHARGING	30-10-25 17:20:32	30-10-25 17:55:09	34.62	100.0	99.2	97.2	3.29	1.44	43.79
9	7479	DISCHARGING	31-10-25 03:19:58	31-10-25 10:05:16	405.29	99.2	60.0	97.2	161.17	159.45	98.93
9	7480	CHARGING	31-10-25 10:05:19	31-10-25 10:09:40	4.36	60.0	62.4	97.2	9.87	11.39	84.54
9	7482	CHARGING	31-10-25 10:10:11	31-10-25 10:16:45	6.56	62.4	63.2	97.2	3.29	3.61	90.19
9	7484	CHARGING	31-10-25 10:16:47	31-10-25 10:34:34	17.79	63.2	76.0	97.2	52.63	54.96	95.58
9	7485	DISCHARGING	31-10-25 10:34:35	31-10-25 14:04:11	209.59	76.0	42.8	97.2	136.5	134.85	98.79
9	7486	CHARGING	31-10-25 14:04:13	31-10-25 15:16:40	72.43	42.8	92.8	97.2	205.58	233.53	86.4
9	7487	DISCHARGING	31-10-25 15:16:43	31-10-25 18:29:58	193.25	92.8	69.2	97.2	97.03	98.09	98.91

Vehicle 11 – Session SoC Accuracy (Page 1/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
11	5	CHARGING	01-10-25 03:10:35	01-10-25 03:50:58	40.39	40.0	68.0	97.6	115.6	123.65	93.04
11	6	DISCHARGING	01-10-25 03:50:59	01-10-25 03:55:44	4.75	68.0	68.0	97.6	0.0	2.09	nan
11	7	CHARGING	01-10-25 03:55:45	01-10-25 04:33:50	38.08	68.0	100.0	97.6	132.11	125.36	94.89
11	8	DISCHARGING	01-10-25 04:33:51	01-10-25 08:48:56	255.08	100.0	63.6	97.6	150.28	150.7	99.72
11	9	CHARGING	01-10-25 08:48:57	01-10-25 09:12:16	23.32	63.6	80.0	97.6	67.71	75.44	88.58
11	10	DISCHARGING	01-10-25 09:12:17	01-10-25 14:37:09	324.87	80.0	40.0	97.6	165.14	156.83	94.97
11	11	CHARGING	01-10-25 14:38:20	01-10-25 16:22:29	104.16	40.0	100.0	97.6	247.71	259.53	95.23
11	12	DISCHARGING	01-10-25 16:22:30	02-10-25 03:33:33	671.05	100.0	35.2	97.6	267.53	262.49	98.12
11	13	DISCHARGING	02-10-25 03:42:20	02-10-25 05:32:50	110.51	35.2	34.0	97.6	4.95	2.76	55.61
11	15	DISCHARGING	02-10-25 06:40:08	02-10-25 06:51:28	11.34	34.0	33.6	97.6	1.65	0.1	6.02
11	16	CHARGING	02-10-25 07:12:30	02-10-25 08:51:41	99.18	33.6	100.0	97.6	274.13	289.74	94.31
11	17	CHARGING	02-10-25 13:53:59	02-10-25 13:54:06	0.11	100.0	100.0	97.6	0.0	5.29	nan
11	18	DISCHARGING	02-10-25 13:54:07	02-10-25 20:13:21	379.23	100.0	58.0	97.6	173.4	168.71	97.3
11	19	CHARGING	02-10-25 20:13:22	02-10-25 20:43:49	30.45	58.0	80.0	97.6	90.83	103.35	86.22
11	20	DISCHARGING	02-10-25 20:43:50	03-10-25 01:12:13	268.39	80.0	46.4	97.6	138.72	142.99	96.92
11	21	CHARGING	03-10-25 01:12:14	03-10-25 02:48:47	96.55	46.4	100.0	97.6	221.29	235.09	93.76
11	22	DISCHARGING	03-10-25 02:48:48	03-10-25 08:28:59	340.17	100.0	53.6	97.6	191.56	192.13	99.7
11	23	CHARGING	03-10-25 08:30:08	03-10-25 09:01:52	31.73	53.6	80.0	97.6	108.99	118.12	91.62
11	24	DISCHARGING	03-10-25 09:01:53	03-10-25 14:01:53	299.99	80.0	33.6	97.6	191.56	180.01	93.97
11	25	CHARGING	03-10-25 14:01:54	03-10-25 16:06:11	124.29	33.6	100.0	97.6	274.13	289.42	94.42
11	26	DISCHARGING	03-10-25 16:06:12	03-10-25 21:11:31	305.32	100.0	59.2	97.6	168.44	170.31	98.89
11	27	CHARGING	03-10-25 21:11:32	03-10-25 21:41:24	29.87	59.2	80.0	97.6	85.87	94.19	90.31
11	28	DISCHARGING	03-10-25 21:41:25	04-10-25 01:38:54	237.48	80.0	46.4	97.6	138.72	137.74	99.3
11	29	CHARGING	04-10-25 02:19:05	04-10-25 03:29:00	69.92	46.4	100.0	97.6	221.29	236.94	92.93
11	30	CHARGING	04-10-25 03:45:33	04-10-25 03:45:43	0.18	100.0	100.0	97.6	0.0	7.33	nan
11	31	DISCHARGING	04-10-25 03:45:44	04-10-25 09:48:46	363.02	100.0	59.2	97.6	168.44	162.18	96.28
11	32	CHARGING	04-10-25 09:49:47	04-10-25 10:14:48	25.02	59.2	76.8	97.6	72.66	82.09	87.02
11	33	DISCHARGING	04-10-25 10:14:49	04-10-25 14:16:24	241.59	76.8	42.8	97.6	140.37	142.7	98.34
11	34	CHARGING	04-10-25 14:16:26	04-10-25 15:16:27	60.02	42.8	91.6	97.6	201.47	232.55	84.57
11	35	DISCHARGING	04-10-25 15:16:29	04-10-25 20:00:41	284.2	91.6	52.4	97.6	161.84	166.23	97.29

Vehicle 11 – Session SoC Accuracy (Page 2/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
11	36	CHARGING	04-10-25 20:00:42	04-10-25 20:33:42	32.99	52.4	77.2	97.6	102.39	109.08	93.46
11	37	DISCHARGING	04-10-25 20:33:43	05-10-25 00:49:19	255.6	77.2	41.2	97.6	148.62	150.72	98.59
11	38	CHARGING	05-10-25 00:49:53	05-10-25 02:03:54	74.02	41.2	100.0	97.6	242.76	247.07	98.22
11	39	DISCHARGING	05-10-25 02:09:46	05-10-25 02:12:27	2.68	100.0	100.0	97.6	0.0	0.74	nan
11	40	DISCHARGING	05-10-25 03:00:45	05-10-25 08:24:23	323.63	100.0	50.8	97.6	203.12	191.62	94.34
11	43	CHARGING	05-10-25 08:26:35	05-10-25 09:06:58	40.38	50.8	80.0	97.6	120.55	140.61	83.36
11	44	DISCHARGING	05-10-25 09:06:59	05-10-25 14:52:10	345.19	80.0	38.0	97.6	173.4	171.52	98.92
11	45	CHARGING	05-10-25 14:52:11	05-10-25 15:54:03	61.87	38.0	84.8	97.6	193.21	209.86	91.39
11	46	DISCHARGING	05-10-25 15:54:05	05-10-25 20:35:57	281.86	84.8	43.2	97.6	171.74	167.3	97.41
11	47	CHARGING	05-10-25 20:35:58	05-10-25 21:18:54	42.94	43.2	76.0	97.6	135.41	144.16	93.54
11	48	DISCHARGING	05-10-25 21:18:55	06-10-25 01:29:43	250.79	76.0	37.2	97.6	160.18	164.85	97.09
11	49	CHARGING	06-10-25 01:29:44	06-10-25 02:52:06	82.37	37.2	100.0	97.6	259.27	263.75	98.27
11	51	DISCHARGING	06-10-25 03:06:50	06-10-25 08:32:48	325.96	100.0	49.6	97.6	208.08	211.96	98.13
11	52	CHARGING	06-10-25 08:32:49	06-10-25 08:43:07	10.3	49.6	49.6	97.6	0.0	0.17	nan
11	54	CHARGING	06-10-25 08:43:09	06-10-25 08:53:00	9.85	49.6	57.6	97.6	33.03	35.81	91.57
11	55	DISCHARGING	06-10-25 08:53:03	06-10-25 08:58:02	4.98	57.6	57.6	97.6	0.0	0.36	nan
11	56	CHARGING	06-10-25 08:58:03	06-10-25 09:26:48	28.75	57.6	80.0	97.6	92.48	101.32	90.44
11	57	DISCHARGING	06-10-25 09:26:49	06-10-25 14:32:42	305.89	80.0	35.2	97.6	184.96	181.54	98.15
11	58	CHARGING	06-10-25 14:32:43	06-10-25 14:33:38	0.91	35.2	35.2	97.6	0.0	0.01	nan
11	60	CHARGING	06-10-25 14:33:41	06-10-25 16:17:28	103.8	34.8	87.6	97.6	217.98	239.07	90.33
11	61	DISCHARGING	06-10-25 16:17:29	06-10-25 20:10:50	233.34	87.6	52.4	97.6	145.32	141.24	97.19
11	62	CHARGING	06-10-25 20:10:51	06-10-25 20:48:35	37.73	52.4	80.4	97.6	115.6	121.67	94.74
11	63	DISCHARGING	06-10-25 20:48:36	07-10-25 00:55:18	246.7	80.4	42.8	97.6	155.23	159.08	97.52
11	64	CHARGING	07-10-25 00:55:56	07-10-25 03:08:01	132.08	42.8	100.0	97.6	236.15	246.2	95.74
11	66	DISCHARGING	07-10-25 07:24:32	07-10-25 07:52:08	27.6	100.0	98.8	97.6	4.95	3.45	69.71
11	68	DISCHARGING	07-10-25 16:35:59	07-10-25 21:23:58	287.99	98.8	60.8	97.6	156.88	156.69	99.88
11	69	CHARGING	07-10-25 21:23:59	07-10-25 21:49:54	25.91	60.8	80.0	97.6	79.27	94.77	80.45
11	70	DISCHARGING	07-10-25 21:49:55	08-10-25 04:38:05	408.17	80.0	37.6	97.6	175.05	177.52	98.58
11	71	DISCHARGING	08-10-25 06:50:57	08-10-25 09:16:35	145.64	37.6	27.6	97.6	41.28	37.87	91.74
11	72	CHARGING	08-10-25 09:16:36	08-10-25 10:13:23	56.78	27.6	64.8	97.6	153.58	162.14	94.42

Vehicle 11 – Session SoC Accuracy (Page 3/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
11	74	CHARGING	08-10-25 10:13:25	08-10-25 10:44:18	30.87	64.8	82.8	97.6	74.31	76.02	97.7
11	78	CHARGING	08-10-25 10:44:54	08-10-25 11:11:23	26.48	82.8	100.0	97.6	71.01	69.09	97.3
11	82	DISCHARGING	08-10-25 11:34:35	08-10-25 12:19:49	45.23	100.0	98.4	97.6	6.61	4.75	71.9
11	83	DISCHARGING	08-10-25 13:34:59	08-10-25 20:22:47	407.8	98.4	51.6	97.6	193.21	178.69	92.49
11	84	CHARGING	08-10-25 20:22:49	08-10-25 21:02:00	39.18	51.6	80.0	97.6	117.25	130.93	88.33
11	85	DISCHARGING	08-10-25 21:02:02	09-10-25 01:12:56	250.91	80.0	40.0	97.6	165.14	162.48	98.39
11	86	CHARGING	09-10-25 01:14:19	09-10-25 02:29:58	75.65	40.0	100.0	97.6	247.71	258.74	95.54
11	88	DISCHARGING	09-10-25 02:37:37	09-10-25 02:40:10	2.56	100.0	100.0	97.6	0.0	0.02	nan
11	89	DISCHARGING	09-10-25 11:47:32	09-10-25 11:51:47	4.26	100.0	99.6	97.6	1.65	1.33	80.27
11	90	DISCHARGING	09-10-25 12:37:20	09-10-25 14:06:55	89.58	99.6	99.6	97.6	0.0	2.7	nan
11	91	DISCHARGING	09-10-25 14:28:46	09-10-25 14:33:36	4.83	99.6	99.6	97.6	0.0	0.04	nan
11	93	DISCHARGING	09-10-25 15:27:03	09-10-25 21:45:36	378.55	99.6	53.6	97.6	189.91	189.34	99.7
11	94	CHARGING	09-10-25 21:47:00	09-10-25 22:19:55	32.92	53.6	79.6	97.6	107.34	112.72	94.99
11	95	DISCHARGING	09-10-25 22:19:57	10-10-25 02:50:55	270.97	79.6	38.4	97.6	170.09	167.8	98.65
11	96	CHARGING	10-10-25 02:56:03	10-10-25 04:15:14	79.17	38.4	92.8	97.6	224.59	250.29	88.56
11	98	CHARGING	10-10-25 04:15:17	10-10-25 04:38:29	23.2	92.8	100.0	97.6	29.72	26.74	89.96
11	99	DISCHARGING	10-10-25 04:38:30	10-10-25 08:56:47	258.27	100.0	62.0	97.6	156.88	159.27	98.48
11	100	DISCHARGING	10-10-25 09:21:52	10-10-25 09:27:49	5.95	62.0	61.6	97.6	1.65	0.87	52.43
11	105	CHARGING	10-10-25 09:32:15	10-10-25 10:00:00	27.75	61.6	77.6	97.6	66.06	70.55	93.19
11	106	DISCHARGING	10-10-25 10:00:08	10-10-25 14:31:47	271.66	77.6	36.4	97.6	170.09	171.36	99.26
11	107	CHARGING	10-10-25 14:31:48	10-10-25 16:06:48	95.0	36.4	100.0	97.6	262.57	279.46	93.57
11	111	DISCHARGING	10-10-25 16:51:00	11-10-25 02:39:58	588.97	100.0	38.4	97.3	253.54	251.54	99.21
11	112	CHARGING	11-10-25 02:40:00	11-10-25 03:36:02	56.05	38.4	80.0	97.2	171.04	197.57	84.49
11	113	DISCHARGING	11-10-25 03:36:03	11-10-25 08:44:32	308.48	80.0	36.8	97.2	177.62	178.64	99.43
11	116	CHARGING	11-10-25 08:46:01	11-10-25 09:32:08	46.12	36.8	76.0	97.2	161.17	171.08	93.86
11	117	DISCHARGING	11-10-25 09:32:09	11-10-25 16:00:48	388.64	76.0	30.8	97.2	185.84	182.88	98.41
11	118	CHARGING	11-10-25 16:00:49	11-10-25 17:06:09	65.34	30.8	85.6	97.2	225.31	249.53	89.25
11	119	DISCHARGING	11-10-25 17:06:10	11-10-25 22:11:27	305.27	85.6	43.6	97.2	172.69	173.96	99.26
11	120	CHARGING	11-10-25 22:11:28	11-10-25 22:14:04	2.6	43.6	43.6	97.2	0.0	0.36	nan
11	124	CHARGING	11-10-25 22:15:37	11-10-25 22:50:14	34.61	43.6	70.0	97.2	108.54	115.46	93.63

Vehicle 11 – Session SoC Accuracy (Page 4/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
11	125	DISCHARGING	11-10-25 22:50:15	12-10-25 03:20:58	270.72	70.0	26.8	97.2	177.62	179.96	98.69
11	126	CHARGING	12-10-25 03:20:59	12-10-25 04:02:36	41.61	26.8	48.4	97.2	88.81	94.28	93.84
11	127	DISCHARGING	12-10-25 04:02:37	12-10-25 04:06:01	3.4	48.4	48.4	97.2	0.0	0.11	nan
11	128	CHARGING	12-10-25 04:06:02	12-10-25 05:06:19	60.29	48.4	95.6	97.2	194.07	191.65	98.76
11	129	DISCHARGING	12-10-25 05:06:20	12-10-25 10:14:14	307.9	95.6	54.8	97.2	167.75	166.71	99.38
11	130	CHARGING	12-10-25 10:14:15	12-10-25 10:41:05	26.84	54.8	75.2	97.2	83.88	88.15	94.91
11	131	DISCHARGING	12-10-25 10:41:07	12-10-25 15:34:11	293.07	75.2	34.4	97.2	167.75	166.5	99.25
11	132	CHARGING	12-10-25 15:34:12	12-10-25 17:16:21	102.14	34.4	84.8	97.2	207.22	232.66	87.73
11	133	DISCHARGING	12-10-25 17:16:22	12-10-25 22:04:16	287.91	84.8	54.0	97.2	126.64	126.41	99.82
11	134	CHARGING	12-10-25 22:04:17	12-10-25 22:14:25	10.12	54.0	54.8	97.2	3.29	3.96	79.75
11	136	CHARGING	12-10-25 22:14:27	12-10-25 22:54:07	39.67	54.8	75.2	97.2	83.88	87.95	95.14
11	137	DISCHARGING	12-10-25 22:54:08	13-10-25 02:53:50	239.7	75.2	36.8	97.2	157.88	151.57	96.0
11	138	CHARGING	13-10-25 02:53:51	13-10-25 04:47:40	113.81	36.8	100.0	97.2	259.85	262.22	99.09
11	139	DISCHARGING	13-10-25 04:47:41	13-10-25 09:16:09	268.48	100.0	64.0	97.2	148.02	144.62	97.71
11	140	CHARGING	13-10-25 09:16:10	13-10-25 09:16:35	0.4	64.0	64.0	97.2	0.0	0.01	nan
11	142	CHARGING	13-10-25 09:16:50	13-10-25 09:42:42	25.86	64.0	80.0	97.2	65.78	77.72	81.86
11	145	DISCHARGING	13-10-25 09:43:58	13-10-25 14:37:45	293.77	80.0	41.6	97.2	157.88	153.14	97.0
11	146	CHARGING	13-10-25 14:37:46	13-10-25 16:10:14	92.48	41.6	100.0	97.2	240.12	250.96	95.48
11	147	DISCHARGING	13-10-25 16:10:15	14-10-25 02:10:16	600.01	100.0	43.2	97.2	233.54	223.96	95.9
11	148	DISCHARGING	14-10-25 02:16:16	14-10-25 02:18:09	1.88	43.2	43.2	97.2	0.0	0.82	nan
11	149	DISCHARGING	14-10-25 02:42:54	14-10-25 03:59:46	76.87	43.2	42.4	97.2	3.29	5.12	44.3
11	150	CHARGING	14-10-25 03:59:47	14-10-25 06:24:33	144.77	42.4	100.0	97.2	236.83	252.56	93.36
11	153	DISCHARGING	14-10-25 06:26:54	14-10-25 06:29:26	2.52	100.0	99.6	97.2	1.64	0.33	20.15
11	154	DISCHARGING	14-10-25 09:17:11	14-10-25 09:21:41	4.49	99.6	99.6	97.2	0.0	7.81	nan
11	155	DISCHARGING	14-10-25 09:46:10	14-10-25 10:03:05	16.92	99.6	99.6	97.2	0.0	0.4	nan
11	156	DISCHARGING	14-10-25 13:33:57	14-10-25 13:36:17	2.34	99.6	99.6	97.2	0.0	2.55	nan
11	157	DISCHARGING	14-10-25 14:31:06	14-10-25 21:39:19	428.22	99.6	54.8	97.2	184.2	180.58	98.04
11	158	CHARGING	14-10-25 21:39:20	14-10-25 21:41:23	2.05	54.8	54.8	97.2	0.0	2.19	nan
11	160	CHARGING	14-10-25 21:41:25	14-10-25 22:13:36	32.18	54.8	80.0	97.2	103.61	112.41	91.51
11	161	DISCHARGING	14-10-25 22:13:37	15-10-25 02:44:20	270.71	80.0	40.4	97.2	162.82	160.74	98.72

Vehicle 11 – Session SoC Accuracy (Page 5/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
11	162	CHARGING	15-10-25 03:51:56	15-10-25 04:07:46	15.83	40.4	52.8	97.2	50.98	54.25	93.59
11	163	CHARGING	15-10-25 04:41:42	15-10-25 05:45:32	63.83	52.8	100.0	97.2	194.07	206.52	93.58
11	164	DISCHARGING	15-10-25 12:19:25	15-10-25 14:07:51	108.43	100.0	99.6	97.2	1.64	0.22	13.13
11	165	DISCHARGING	15-10-25 16:21:38	15-10-25 21:46:46	325.13	99.6	63.2	97.2	149.66	131.48	87.85
11	166	CHARGING	15-10-25 21:46:47	15-10-25 22:14:10	27.39	63.2	81.2	97.2	74.01	100.32	64.45
11	167	DISCHARGING	15-10-25 22:14:12	16-10-25 02:41:51	267.65	81.2	44.8	97.2	149.66	155.23	96.28
11	168	DISCHARGING	16-10-25 02:49:46	16-10-25 02:54:16	4.5	44.8	44.4	97.2	1.64	0.13	8.07
11	169	CHARGING	16-10-25 02:54:18	16-10-25 04:32:51	98.55	44.4	100.0	97.2	228.6	227.53	99.53
11	170	DISCHARGING	16-10-25 04:32:53	16-10-25 09:09:43	276.84	100.0	60.8	97.2	161.17	162.2	99.37
11	171	CHARGING	16-10-25 09:09:44	16-10-25 09:38:17	28.54	60.8	80.0	97.2	78.94	88.9	87.38
11	172	DISCHARGING	16-10-25 09:38:18	16-10-25 14:00:14	261.93	80.0	42.8	97.2	152.95	155.57	98.29
11	173	CHARGING	16-10-25 14:00:15	16-10-25 16:02:49	122.56	42.8	100.0	97.2	235.18	244.96	95.84
11	176	DISCHARGING	16-10-25 16:58:47	17-10-25 01:53:33	534.76	99.6	40.4	97.2	243.4	248.33	97.98
11	177	CHARGING	17-10-25 01:56:04	17-10-25 03:27:45	91.68	40.4	100.0	97.2	245.05	263.41	92.51
11	180	DISCHARGING	17-10-25 03:30:13	17-10-25 09:03:12	332.97	100.0	50.4	97.2	203.93	205.56	99.2
11	181	CHARGING	17-10-25 09:04:32	17-10-25 09:41:23	36.84	50.4	80.0	97.2	121.7	134.31	89.64
11	182	DISCHARGING	17-10-25 09:41:24	17-10-25 15:27:03	345.65	80.0	36.4	97.2	179.26	174.47	97.33
11	183	CHARGING	17-10-25 15:27:04	17-10-25 16:35:34	68.51	36.4	94.8	97.2	240.12	250.58	95.64
11	184	DISCHARGING	17-10-25 16:35:36	17-10-25 21:43:13	307.62	94.8	59.6	97.2	144.73	143.22	98.96
11	185	CHARGING	17-10-25 21:43:14	17-10-25 21:43:38	0.41	59.6	59.6	97.2	0.0	0.79	nan
11	189	CHARGING	17-10-25 21:44:38	17-10-25 22:10:42	26.06	59.6	80.0	97.2	83.88	95.16	86.55
11	190	DISCHARGING	17-10-25 22:10:43	18-10-25 03:14:52	304.14	80.0	32.4	97.2	195.71	181.61	92.79
11	191	CHARGING	18-10-25 03:14:55	18-10-25 04:56:53	101.97	32.4	100.0	97.2	277.94	286.82	96.81
11	192	DISCHARGING	18-10-25 04:56:54	18-10-25 09:06:04	249.17	100.0	61.6	97.2	157.88	159.25	99.14
11	193	CHARGING	18-10-25 09:06:58	18-10-25 09:32:21	25.37	61.6	78.8	97.2	70.72	75.7	92.96
11	194	DISCHARGING	18-10-25 09:32:22	18-10-25 13:46:45	254.39	78.8	41.2	97.2	154.6	160.41	96.24
11	195	CHARGING	18-10-25 13:46:46	18-10-25 15:34:32	107.77	41.2	100.0	97.2	241.76	260.89	92.09
11	197	CHARGING	18-10-25 15:34:35	18-10-25 15:36:06	1.51	100.0	100.0	97.2	0.0	2.47	nan
11	198	DISCHARGING	18-10-25 15:36:07	18-10-25 15:36:07	0.01	100.0	100.0	97.2	0.0	0.0	nan
11	200	DISCHARGING	18-10-25 15:45:31	18-10-25 15:48:41	3.18	100.0	99.6	97.2	1.64	0.01	0.43

Vehicle 11 – Session SoC Accuracy (Page 6/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
11	201	DISCHARGING	18-10-25 16:27:53	19-10-25 03:17:44	649.86	99.6	35.6	97.2	263.14	259.82	98.74
11	202	CHARGING	19-10-25 03:34:15	19-10-25 03:35:32	1.28	35.6	35.6	97.2	0.0	0.7	nan
11	206	CHARGING	19-10-25 03:36:16	19-10-25 03:38:20	2.06	35.6	36.0	97.2	1.64	0.26	15.75
11	208	CHARGING	19-10-25 03:38:22	19-10-25 05:08:39	90.28	36.0	95.2	97.2	243.4	272.9	87.88
11	209	DISCHARGING	19-10-25 05:08:42	19-10-25 09:01:01	232.31	95.2	59.6	97.2	146.37	143.74	98.21
11	210	CHARGING	19-10-25 09:01:04	19-10-25 09:24:59	23.92	59.6	76.4	97.2	69.07	72.96	94.37
11	211	DISCHARGING	19-10-25 09:25:00	19-10-25 13:56:06	271.09	76.4	39.2	97.2	152.95	153.71	99.51
11	220	CHARGING	19-10-25 14:04:41	19-10-25 14:06:21	1.67	39.2	39.6	97.2	1.64	0.32	19.71
11	222	CHARGING	19-10-25 14:06:23	19-10-25 15:56:01	109.64	39.6	82.4	97.2	175.98	193.26	90.18
11	224	CHARGING	19-10-25 15:56:03	19-10-25 17:00:57	64.89	82.4	100.0	97.2	72.36	60.36	83.42
11	225	DISCHARGING	19-10-25 17:00:58	20-10-25 01:53:35	532.61	100.0	43.6	97.2	231.89	229.39	98.92
11	226	CHARGING	20-10-25 01:54:17	20-10-25 04:33:18	159.02	43.6	100.0	97.2	231.89	247.31	93.35
11	227	DISCHARGING	20-10-25 04:33:19	20-10-25 04:35:59	2.67	100.0	99.6	97.2	1.64	0.79	48.06
11	228	DISCHARGING	20-10-25 04:50:03	20-10-25 09:00:19	250.27	99.6	63.6	97.2	148.02	145.92	98.58
11	229	CHARGING	20-10-25 09:00:20	20-10-25 09:25:48	25.47	63.6	80.0	97.2	67.43	77.02	85.77
11	230	DISCHARGING	20-10-25 09:25:49	20-10-25 13:51:15	265.42	80.0	42.8	97.2	152.95	157.3	97.16
11	231	CHARGING	20-10-25 13:51:16	20-10-25 16:52:39	181.39	42.8	100.0	97.2	235.18	248.62	94.29
11	232	DISCHARGING	20-10-25 16:52:40	21-10-25 02:13:49	561.14	100.0	43.6	97.2	231.89	229.84	99.12
11	233	CHARGING	21-10-25 02:13:58	21-10-25 03:35:32	81.57	43.6	100.0	97.2	231.89	244.94	94.37
11	234	DISCHARGING	21-10-25 04:16:09	21-10-25 08:58:49	282.65	100.0	56.0	97.2	180.91	183.52	98.56
11	235	CHARGING	21-10-25 08:59:14	21-10-25 09:29:18	30.06	56.0	80.0	97.2	98.68	104.99	93.6
11	236	DISCHARGING	21-10-25 09:29:19	21-10-25 14:47:20	318.01	80.0	38.4	97.2	171.04	169.0	98.81
11	237	CHARGING	21-10-25 14:48:26	21-10-25 16:39:34	111.14	38.4	100.0	97.2	253.27	272.69	92.33
11	238	DISCHARGING	21-10-25 16:39:35	21-10-25 21:39:46	300.18	100.0	61.6	97.2	157.88	157.37	99.67
11	239	CHARGING	21-10-25 21:40:30	21-10-25 22:07:20	26.82	61.6	80.0	97.2	75.65	90.07	80.94
11	240	DISCHARGING	21-10-25 22:07:21	22-10-25 02:52:49	285.48	80.0	40.8	97.2	161.17	160.79	99.76
11	241	CHARGING	22-10-25 02:53:14	22-10-25 03:30:16	37.04	40.8	69.2	97.2	116.77	123.86	93.93
11	245	CHARGING	22-10-25 04:09:13	22-10-25 05:00:18	51.08	69.2	100.0	97.2	126.64	127.14	99.6
11	246	DISCHARGING	22-10-25 05:00:19	22-10-25 09:00:33	240.24	100.0	61.2	97.2	159.53	159.0	99.67
11	249	CHARGING	22-10-25 09:01:20	22-10-25 09:26:05	24.74	61.2	80.0	97.2	77.3	81.31	94.81

Vehicle 11 – Session SoC Accuracy (Page 7/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
11	252	DISCHARGING	22-10-25 09:26:13	22-10-25 13:44:13	258.0	80.0	38.0	97.2	172.69	177.21	97.38
11	253	CHARGING	22-10-25 13:44:14	22-10-25 15:42:25	118.19	38.0	100.0	97.2	254.92	273.9	92.55
11	254	CHARGING	22-10-25 16:02:56	22-10-25 16:03:00	0.07	100.0	100.0	97.2	0.0	5.96	nan
11	255	DISCHARGING	22-10-25 16:03:01	23-10-25 01:39:04	576.04	100.0	34.4	97.16	269.62	256.16	95.01
11	256	CHARGING	23-10-25 01:39:06	23-10-25 03:14:51	95.76	34.4	84.4	96.8	204.73	227.9	88.69
11	258	CHARGING	23-10-25 03:14:55	23-10-25 03:16:02	1.11	84.4	84.4	96.8	0.0	2.72	nan
11	261	DISCHARGING	23-10-25 03:19:43	23-10-25 08:06:31	286.8	84.4	42.8	96.8	170.34	167.22	98.17
11	262	CHARGING	23-10-25 08:06:33	23-10-25 08:51:09	44.6	42.8	80.8	96.8	155.6	163.83	94.71
11	263	DISCHARGING	23-10-25 08:51:10	23-10-25 14:05:28	314.31	80.8	36.0	96.8	183.44	172.5	94.03
11	264	CHARGING	23-10-25 14:05:30	23-10-25 14:06:44	1.24	36.0	36.0	96.8	0.0	0.28	nan
11	266	CHARGING	23-10-25 14:06:46	23-10-25 15:41:36	94.83	36.0	100.0	96.8	262.06	256.46	97.87
11	267	DISCHARGING	23-10-25 15:41:37	23-10-25 20:41:00	299.39	100.0	60.4	96.8	162.15	166.12	97.55
11	268	CHARGING	23-10-25 20:41:01	23-10-25 21:04:35	23.57	60.4	80.0	96.8	80.26	87.24	91.3
11	269	DISCHARGING	23-10-25 21:04:38	24-10-25 01:36:19	271.67	80.0	42.0	96.8	155.6	155.15	99.71
11	270	CHARGING	24-10-25 01:36:22	24-10-25 03:50:48	134.43	42.0	100.0	96.8	237.49	252.3	93.77
11	272	DISCHARGING	24-10-25 04:12:04	24-10-25 08:59:35	287.52	100.0	60.8	96.8	160.51	165.06	97.16
11	273	CHARGING	24-10-25 09:00:48	24-10-25 09:26:50	26.02	60.8	80.0	96.8	78.62	87.99	88.07
11	274	DISCHARGING	24-10-25 09:36:10	24-10-25 15:28:23	352.22	80.0	40.0	96.8	163.79	165.34	99.05
11	275	CHARGING	24-10-25 15:28:24	24-10-25 16:42:12	73.81	40.0	100.0	96.8	245.68	258.17	94.92
11	276	DISCHARGING	24-10-25 16:42:16	24-10-25 21:41:27	299.19	100.0	60.4	96.8	162.15	162.94	99.51
11	277	CHARGING	24-10-25 21:41:28	24-10-25 22:05:22	23.9	60.4	80.0	96.8	80.26	89.14	88.92
11	280	DISCHARGING	24-10-25 22:06:07	25-10-25 03:04:44	298.63	80.0	41.6	96.8	157.23	156.1	99.28
11	281	DISCHARGING	25-10-25 03:11:28	25-10-25 03:14:08	2.65	41.6	41.6	96.8	0.0	0.11	nan
11	282	CHARGING	25-10-25 03:15:10	25-10-25 04:31:10	75.99	41.6	100.0	96.8	239.13	253.62	93.94
11	286	DISCHARGING	25-10-25 04:46:17	25-10-25 08:55:11	248.89	100.0	62.4	96.8	153.96	150.75	97.92
11	287	CHARGING	25-10-25 08:55:12	25-10-25 09:24:52	29.66	62.4	80.0	96.8	72.07	89.03	76.46
11	288	DISCHARGING	25-10-25 09:24:53	25-10-25 14:02:01	277.13	80.0	38.8	96.8	168.7	169.77	99.36
11	289	CHARGING	25-10-25 14:02:04	25-10-25 15:49:48	107.73	38.8	100.0	96.8	250.59	257.58	97.21
11	290	DISCHARGING	25-10-25 15:49:49	26-10-25 01:51:12	601.38	100.0	42.4	96.8	235.85	233.32	98.93
11	291	CHARGING	26-10-25 01:52:26	26-10-25 03:18:00	85.56	42.4	100.0	96.8	235.85	250.09	93.96

Vehicle 11 – Session SoC Accuracy (Page 8/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
11	292	DISCHARGING	26-10-25 03:18:03	26-10-25 08:22:19	304.28	100.0	57.2	96.8	175.25	174.82	99.75
11	293	CHARGING	26-10-25 08:22:20	26-10-25 08:54:05	31.74	57.2	80.0	96.8	93.36	100.66	92.18
11	294	DISCHARGING	26-10-25 08:54:06	26-10-25 14:47:54	353.8	80.0	41.6	96.8	157.23	154.61	98.33
11	295	CHARGING	26-10-25 14:47:55	26-10-25 15:57:46	69.84	41.6	98.8	96.8	234.21	247.55	94.31
11	296	DISCHARGING	26-10-25 15:57:49	26-10-25 20:56:31	298.69	98.8	62.4	96.8	149.04	147.64	99.06
11	297	CHARGING	26-10-25 20:56:32	26-10-25 21:23:36	27.07	62.4	80.0	96.8	72.07	83.64	83.94
11	298	DISCHARGING	26-10-25 21:23:37	27-10-25 02:09:55	286.29	80.0	39.2	96.8	167.06	170.73	97.8
11	299	CHARGING	27-10-25 02:09:56	27-10-25 03:10:00	60.08	39.2	84.4	96.8	185.08	205.62	88.9
11	300	CHARGING	27-10-25 03:17:12	27-10-25 03:17:14	0.03	84.4	84.4	96.8	0.0	3.65	nan
11	301	DISCHARGING	27-10-25 03:17:15	27-10-25 03:17:16	0.01	84.4	84.4	96.8	0.0	0.0	nan
11	302	CHARGING	27-10-25 03:17:18	27-10-25 03:22:32	5.23	84.4	84.4	96.8	0.0	0.21	nan
11	304	CHARGING	27-10-25 03:22:34	27-10-25 03:31:26	8.87	84.4	88.0	96.8	14.74	27.6	12.78
11	305	DISCHARGING	27-10-25 03:31:28	27-10-25 08:01:20	269.88	88.0	47.6	96.8	165.42	153.85	93.0
11	306	CHARGING	27-10-25 08:02:12	27-10-25 08:43:51	41.66	47.6	80.0	96.8	132.67	146.35	89.68
11	307	DISCHARGING	27-10-25 08:43:53	27-10-25 14:12:55	329.04	80.0	41.6	96.8	157.23	161.19	97.48
11	308	CHARGING	27-10-25 14:12:56	27-10-25 15:32:52	79.93	41.6	82.4	96.8	167.06	174.57	95.51
11	309	DISCHARGING	27-10-25 15:32:53	27-10-25 20:43:25	310.53	82.4	47.2	96.8	144.13	145.62	98.97
11	310	CHARGING	27-10-25 20:43:26	27-10-25 21:22:19	38.87	47.2	80.0	96.8	134.3	145.31	91.81
11	311	DISCHARGING	27-10-25 21:22:20	28-10-25 02:10:44	288.41	80.0	45.2	96.8	142.49	142.97	99.67
11	312	CHARGING	28-10-25 02:11:28	28-10-25 03:10:13	58.75	45.2	85.2	96.8	163.79	169.27	96.65
11	314	CHARGING	28-10-25 03:10:16	28-10-25 04:49:16	99.0	85.2	100.0	96.8	60.6	50.94	84.06
11	315	DISCHARGING	28-10-25 04:49:17	28-10-25 08:49:56	240.65	100.0	61.2	96.8	158.87	157.8	99.32
11	316	CHARGING	28-10-25 08:49:58	28-10-25 09:18:04	28.1	61.2	80.0	96.8	76.98	83.64	91.35
11	317	DISCHARGING	28-10-25 09:18:05	28-10-25 13:41:21	263.27	80.0	40.0	96.8	163.79	161.79	98.78
11	318	CHARGING	28-10-25 13:41:22	28-10-25 15:18:28	97.1	40.0	100.0	96.8	245.68	262.05	93.34
11	321	DISCHARGING	28-10-25 16:49:40	28-10-25 22:33:29	343.83	100.0	72.4	96.8	113.01	106.46	94.2
11	322	CHARGING	28-10-25 22:34:00	28-10-25 23:13:42	39.7	72.4	100.0	96.8	113.01	117.95	95.63
11	323	DISCHARGING	28-10-25 23:13:44	29-10-25 03:56:12	282.48	100.0	66.4	96.8	137.58	142.26	96.6
11	325	DISCHARGING	29-10-25 05:40:44	29-10-25 06:16:03	35.31	66.4	64.0	96.8	9.83	9.31	94.77
11	326	CHARGING	29-10-25 06:16:56	29-10-25 07:20:48	63.86	64.0	100.0	96.8	147.41	157.57	93.1

Vehicle 11 — Session SoC Accuracy (Page 9/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
11	327	DISCHARGING	29-10-25 07:20:48	29-10-25 07:48:40	27.87	100.0	96.0	96.8	16.38	14.25	87.01
11	331	DISCHARGING	29-10-25 09:33:59	29-10-25 10:57:06	83.11	96.0	95.6	96.8	1.64	0.01	0.35
11	332	DISCHARGING	29-10-25 11:55:12	29-10-25 12:08:32	13.33	95.6	95.6	96.8	0.0	0.83	nan
11	333	DISCHARGING	29-10-25 14:42:24	29-10-25 20:05:26	323.03	95.6	56.4	96.8	160.51	151.8	94.57
11	334	DISCHARGING	29-10-25 20:20:52	29-10-25 20:23:24	2.53	56.4	56.4	96.8	0.0	0.06	nan
11	335	CHARGING	29-10-25 20:24:01	29-10-25 20:58:11	34.16	56.4	75.6	96.8	78.62	84.86	92.05
11	336	DISCHARGING	29-10-25 20:58:12	30-10-25 01:21:33	263.35	75.6	35.2	96.8	165.42	166.6	99.29
11	0	DISCHARGING	30-09-25 18:30:01	30-09-25 21:46:34	196.55	91.6	61.6	97.6	123.85	125.96	98.3
11	1	CHARGING	30-09-25 21:46:35	30-09-25 22:13:50	27.24	61.6	80.0	97.6	75.96	97.07	72.22
11	2	DISCHARGING	30-09-25 22:13:51	01-10-25 03:07:54	294.04	80.0	40.0	97.6	165.14	164.65	99.7
11	337	CHARGING	30-10-25 01:21:34	30-10-25 02:52:07	90.55	35.2	100.0	96.8	265.33	282.9	93.38
11	339	DISCHARGING	30-10-25 03:05:27	30-10-25 08:32:33	327.09	100.0	56.0	96.8	180.16	178.3	98.97
11	340	CHARGING	30-10-25 08:32:34	30-10-25 09:03:18	30.73	56.0	80.0	96.8	98.27	110.18	87.88
11	341	DISCHARGING	30-10-25 09:03:19	30-10-25 14:02:34	299.25	80.0	39.6	96.8	165.42	149.58	90.42
11	342	CHARGING	30-10-25 14:02:35	30-10-25 15:35:36	93.02	39.6	90.4	96.8	208.01	229.66	89.59
11	344	CHARGING	30-10-25 15:35:38	30-10-25 16:20:59	45.35	90.4	100.0	96.8	39.31	26.79	68.15
11	346	DISCHARGING	31-10-25 03:51:21	31-10-25 09:04:01	312.67	100.0	56.4	96.8	178.53	177.61	99.48
11	347	CHARGING	31-10-25 09:04:33	31-10-25 09:36:18	31.76	56.4	80.0	96.8	96.63	109.01	87.19
11	348	DISCHARGING	31-10-25 09:36:19	31-10-25 14:52:31	316.19	80.0	36.8	96.8	176.89	181.52	97.38
11	349	CHARGING	31-10-25 14:52:32	31-10-25 16:27:22	94.83	36.8	100.0	96.8	258.78	272.41	94.73
11	350	DISCHARGING	31-10-25 16:27:23	31-10-25 18:29:58	122.59	100.0	89.6	96.8	42.58	38.18	89.66

Vehicle 12 – Session SoC Accuracy (Page 1/11)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
12	354	DISCHARGING	01-10-25 02:59:54	01-10-25 04:04:41	64.79	48.0	46.8	99.6	5.06	0.46	9.01
12	355	CHARGING	01-10-25 04:04:42	01-10-25 05:19:46	75.06	46.8	100.0	99.6	224.14	203.52	90.8
12	356	DISCHARGING	01-10-25 05:19:47	01-10-25 09:03:37	223.83	100.0	98.8	99.6	5.06	2.22	43.88
12	359	DISCHARGING	01-10-25 10:46:43	01-10-25 11:14:31	27.81	98.8	98.4	99.6	1.68	1.42	84.56
12	360	DISCHARGING	01-10-25 12:45:32	01-10-25 19:05:42	380.17	98.4	59.6	99.6	163.47	158.32	96.85
12	361	CHARGING	01-10-25 19:07:15	01-10-25 19:48:24	41.15	59.6	88.4	99.6	121.34	152.74	74.12
12	362	DISCHARGING	01-10-25 19:48:25	02-10-25 00:00:33	252.13	88.4	42.8	99.6	192.12	196.42	97.76
12	363	CHARGING	02-10-25 00:54:27	02-10-25 02:13:25	78.97	42.8	100.0	99.6	240.99	238.4	98.93
12	364	CHARGING	02-10-25 04:51:16	02-10-25 04:51:18	0.03	100.0	100.0	99.6	0.0	4.28	nan
12	365	DISCHARGING	02-10-25 04:51:19	02-10-25 05:03:49	12.49	100.0	99.6	99.6	1.68	0.29	16.98
12	366	DISCHARGING	02-10-25 07:59:56	02-10-25 08:00:32	0.6	99.6	99.6	99.6	0.0	0.69	nan
12	367	DISCHARGING	02-10-25 11:08:52	02-10-25 18:24:42	435.83	99.6	79.6	99.6	84.26	76.38	90.65
12	368	CHARGING	02-10-25 18:24:43	02-10-25 18:51:47	27.06	79.6	91.6	99.6	50.56	88.13	25.69
12	369	DISCHARGING	02-10-25 18:51:48	03-10-25 02:14:25	442.62	91.6	44.4	99.6	198.86	201.42	98.71
12	370	CHARGING	03-10-25 02:17:07	03-10-25 03:20:47	63.66	44.4	100.0	99.6	234.25	215.9	92.17
12	372	DISCHARGING	03-10-25 05:26:54	03-10-25 12:41:31	434.62	100.0	96.8	99.6	13.48	7.1	52.65
12	373	CHARGING	03-10-25 12:42:55	03-10-25 12:55:39	12.74	96.8	100.0	99.6	13.48	14.64	91.44
12	374	DISCHARGING	03-10-25 12:55:41	03-10-25 19:24:06	388.42	100.0	56.8	99.6	182.0	183.54	99.16
12	377	CHARGING	03-10-25 19:28:44	03-10-25 20:12:47	44.06	56.8	91.2	99.6	144.93	168.63	83.65
12	378	DISCHARGING	03-10-25 20:12:49	04-10-25 00:28:55	256.1	91.2	38.8	99.6	220.76	226.46	97.42
12	379	CHARGING	04-10-25 00:34:09	04-10-25 01:19:21	45.21	38.8	66.4	99.6	116.28	127.94	89.97
12	380	DISCHARGING	04-10-25 01:19:22	04-10-25 01:24:43	5.36	66.4	66.4	99.6	0.0	1.84	nan
12	381	CHARGING	04-10-25 01:24:44	04-10-25 02:30:07	65.39	66.4	100.0	99.6	141.56	137.36	97.04
12	382	DISCHARGING	04-10-25 02:30:08	04-10-25 02:39:51	9.71	100.0	99.6	99.6	1.68	0.24	14.09
12	383	DISCHARGING	04-10-25 11:02:12	04-10-25 11:03:26	1.24	99.6	99.6	99.6	0.0	0.84	nan
12	384	DISCHARGING	04-10-25 11:17:44	04-10-25 12:28:21	70.62	99.6	98.0	99.6	6.74	6.18	91.63
12	385	DISCHARGING	04-10-25 12:40:41	04-10-25 18:48:29	367.8	98.0	78.0	99.6	84.26	72.38	85.9
12	386	CHARGING	04-10-25 18:48:30	04-10-25 18:51:53	3.38	78.0	78.8	99.6	3.37	3.1	92.11
12	388	CHARGING	04-10-25 18:51:55	04-10-25 19:17:05	25.17	78.8	90.8	99.6	50.56	91.05	19.91
12	389	DISCHARGING	04-10-25 19:17:09	05-10-25 02:24:53	427.74	90.8	43.2	99.6	200.54	204.89	97.83

Vehicle 12 – Session SoC Accuracy (Page 2/11)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
12	390	CHARGING	05-10-25 02:24:54	05-10-25 04:17:56	113.04	43.2	100.0	99.6	239.3	220.35	92.08
12	391	DISCHARGING	05-10-25 04:17:58	05-10-25 06:54:33	156.58	100.0	95.2	99.6	20.22	13.6	67.26
12	393	DISCHARGING	05-10-25 07:59:17	05-10-25 08:22:06	22.81	95.2	94.4	99.6	3.37	3.54	95.05
12	394	DISCHARGING	05-10-25 09:22:31	05-10-25 11:09:57	107.44	94.4	93.2	99.6	5.06	1.8	35.61
12	395	CHARGING	05-10-25 11:22:41	05-10-25 11:36:26	13.74	93.2	98.4	99.6	21.91	38.28	25.27
12	396	DISCHARGING	05-10-25 11:36:27	05-10-25 11:39:35	3.13	100.0	99.6	99.6	1.68	0.12	6.84
12	397	DISCHARGING	05-10-25 12:40:17	05-10-25 18:56:45	376.47	99.6	53.6	99.6	193.8	192.05	99.09
12	398	CHARGING	05-10-25 18:56:46	05-10-25 19:16:10	19.39	53.6	63.2	99.6	40.45	43.82	91.66
12	399	DISCHARGING	05-10-25 19:16:11	05-10-25 20:45:24	89.23	63.2	42.4	99.6	87.63	89.23	98.18
12	400	CHARGING	05-10-25 20:45:25	05-10-25 21:19:04	33.64	42.4	70.8	99.6	119.65	126.42	94.34
12	401	DISCHARGING	05-10-25 21:19:06	06-10-25 00:30:59	191.89	70.8	44.0	99.6	112.91	114.89	98.25
12	402	CHARGING	06-10-25 00:31:00	06-10-25 00:32:07	1.11	44.0	44.0	99.6	0.0	1.73	nan
12	406	CHARGING	06-10-25 00:32:31	06-10-25 02:18:16	105.75	44.0	100.0	99.6	235.93	250.58	93.79
12	407	DISCHARGING	06-10-25 02:18:19	06-10-25 02:33:01	14.69	100.0	99.6	99.6	1.68	0.25	14.67
12	409	DISCHARGING	06-10-25 04:49:33	06-10-25 04:59:12	9.64	99.6	99.6	99.6	0.0	0.63	nan
12	410	DISCHARGING	06-10-25 05:10:13	06-10-25 05:11:05	0.87	99.6	99.6	99.6	0.0	2.83	nan
12	411	DISCHARGING	06-10-25 06:19:00	06-10-25 06:28:21	9.36	99.6	99.6	99.6	0.0	6.57	nan
12	412	DISCHARGING	06-10-25 09:17:37	06-10-25 09:18:53	1.25	99.6	99.6	99.6	0.0	0.96	nan
12	413	DISCHARGING	06-10-25 10:53:31	06-10-25 10:55:33	2.03	99.6	99.6	99.6	0.0	7.55	nan
12	414	DISCHARGING	06-10-25 11:03:11	06-10-25 11:37:52	34.69	99.6	98.4	99.6	5.06	2.15	42.58
12	415	DISCHARGING	06-10-25 13:28:09	06-10-25 19:38:55	370.76	98.4	79.6	99.6	79.21	68.61	86.62
12	416	CHARGING	06-10-25 19:38:56	06-10-25 20:06:36	27.65	79.6	100.0	99.6	85.95	88.69	96.81
12	417	DISCHARGING	06-10-25 20:06:36	07-10-25 01:58:58	352.35	100.0	55.6	99.6	187.06	189.4	98.75
12	418	DISCHARGING	07-10-25 04:31:19	07-10-25 05:06:53	35.56	55.6	55.2	99.6	1.68	1.06	63.03
12	419	CHARGING	07-10-25 05:06:54	07-10-25 05:29:56	23.03	55.2	56.0	99.6	3.37	2.81	83.48
12	421	CHARGING	07-10-25 05:29:58	07-10-25 07:53:18	143.33	56.0	72.0	99.6	67.41	73.95	90.29
12	424	DISCHARGING	07-10-25 08:41:08	07-10-25 09:02:22	21.23	72.0	72.0	99.6	0.0	0.01	nan
12	426	CHARGING	07-10-25 11:02:49	07-10-25 11:05:10	2.35	72.0	72.8	99.6	3.37	2.55	75.77
12	427	CHARGING	07-10-25 11:19:05	07-10-25 12:11:07	52.03	72.8	100.0	99.6	114.6	120.61	94.75
12	429	DISCHARGING	07-10-25 12:19:06	07-10-25 12:22:05	2.99	100.0	99.6	99.6	1.68	0.12	7.42

Vehicle 12 – Session SoC Accuracy (Page 3/11)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
12	430	DISCHARGING	07-10-25 12:45:44	07-10-25 12:50:22	4.65	99.6	99.6	99.6	0.0	0.53	nan
12	431	DISCHARGING	07-10-25 13:35:02	07-10-25 19:19:31	344.48	99.6	59.2	99.6	170.21	159.63	93.79
12	432	CHARGING	07-10-25 19:20:13	07-10-25 20:01:21	41.13	59.2	91.2	99.6	134.82	161.43	80.26
12	433	DISCHARGING	07-10-25 20:01:24	08-10-25 00:45:42	284.3	91.2	47.6	99.6	183.69	185.38	99.08
12	434	CHARGING	08-10-25 00:45:43	08-10-25 02:16:56	91.23	47.6	100.0	99.6	220.76	217.29	98.43
12	435	DISCHARGING	08-10-25 02:22:40	08-10-25 02:30:12	7.54	100.0	99.6	99.6	1.68	0.36	21.68
12	436	DISCHARGING	08-10-25 04:56:31	08-10-25 07:32:56	156.41	99.6	97.2	99.6	10.11	1.33	13.19
12	438	DISCHARGING	08-10-25 10:38:09	08-10-25 11:14:46	36.62	97.2	96.4	99.6	3.37	0.38	11.18
12	439	DISCHARGING	08-10-25 13:06:39	08-10-25 14:10:26	63.78	96.4	95.2	99.6	5.06	0.75	14.83
12	440	DISCHARGING	08-10-25 14:20:20	08-10-25 19:17:06	296.77	95.2	76.8	99.6	77.52	75.14	96.93
12	441	CHARGING	08-10-25 19:17:07	08-10-25 19:23:26	6.32	76.8	77.6	99.6	3.37	3.38	99.64
12	443	CHARGING	08-10-25 19:23:28	08-10-25 19:26:10	2.7	77.6	78.0	99.6	1.68	4.56	-70.42
12	445	CHARGING	08-10-25 19:26:12	08-10-25 19:41:10	14.96	78.0	84.8	99.6	28.65	49.47	27.32
12	447	CHARGING	08-10-25 19:41:12	08-10-25 19:45:56	4.73	84.8	84.8	99.6	0.0	3.92	nan
12	449	CHARGING	08-10-25 19:45:58	08-10-25 20:03:23	17.42	84.8	90.8	99.6	25.28	33.65	66.89
12	450	DISCHARGING	08-10-25 20:03:26	09-10-25 01:37:48	334.37	90.8	48.0	99.6	180.32	183.19	98.41
12	451	DISCHARGING	09-10-25 02:29:05	09-10-25 03:04:58	35.88	48.0	47.6	99.6	1.68	0.47	27.88
12	454	CHARGING	09-10-25 04:24:04	09-10-25 06:13:46	109.7	47.6	100.0	99.6	220.76	205.49	93.08
12	455	DISCHARGING	09-10-25 06:20:48	09-10-25 07:45:55	85.11	100.0	97.6	99.6	10.11	5.04	49.85
12	456	DISCHARGING	09-10-25 08:26:43	09-10-25 09:43:20	76.61	97.6	96.8	99.6	3.37	1.71	50.79
12	457	DISCHARGING	09-10-25 10:20:27	09-10-25 12:31:16	130.81	96.8	96.0	99.6	3.37	2.48	73.54
12	458	CHARGING	09-10-25 12:34:38	09-10-25 12:46:05	11.44	96.0	100.0	99.6	16.85	15.84	94.01
12	459	DISCHARGING	09-10-25 12:46:06	09-10-25 19:22:03	395.95	100.0	47.2	99.6	222.45	221.16	99.42
12	460	CHARGING	09-10-25 19:22:04	09-10-25 19:24:12	2.15	47.2	47.2	99.6	0.0	0.26	nan
12	462	CHARGING	09-10-25 19:24:15	09-10-25 19:26:03	1.8	47.2	47.6	99.6	1.68	0.51	30.35
12	464	CHARGING	09-10-25 19:27:47	09-10-25 19:32:10	4.4	47.6	48.0	99.6	1.68	2.54	49.02
12	465	DISCHARGING	09-10-25 19:32:12	09-10-25 19:34:13	2.02	48.0	48.0	99.6	0.0	0.02	nan
12	466	CHARGING	09-10-25 19:34:14	09-10-25 19:47:20	13.11	48.0	50.0	99.6	8.43	8.43	100.0
12	467	DISCHARGING	09-10-25 19:47:22	09-10-25 21:28:04	100.69	50.0	29.2	99.6	87.63	86.52	98.73
12	468	CHARGING	09-10-25 21:28:05	09-10-25 22:17:42	49.62	29.2	70.0	99.6	171.89	181.42	94.46

Vehicle 12 – Session SoC Accuracy (Page 4/11)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
12	469	DISCHARGING	09-10-25 22:17:43	10-10-25 01:42:08	204.41	70.0	44.0	99.6	109.54	113.53	96.36
12	470	DISCHARGING	10-10-25 02:27:45	10-10-25 02:32:23	4.64	44.0	43.6	99.6	1.68	0.08	4.89
12	471	CHARGING	10-10-25 03:36:04	10-10-25 05:09:47	93.71	43.6	100.0	99.6	237.62	252.2	93.86
12	473	DISCHARGING	10-10-25 05:16:38	10-10-25 05:23:05	6.45	100.0	99.6	99.6	1.68	0.19	11.36
12	475	DISCHARGING	10-10-25 06:42:20	10-10-25 06:45:12	2.87	99.6	99.6	99.6	0.0	0.13	nan
12	476	DISCHARGING	10-10-25 06:51:55	10-10-25 06:53:39	1.73	99.6	99.6	99.6	0.0	0.02	nan
12	477	DISCHARGING	10-10-25 07:35:42	10-10-25 13:06:19	330.61	99.6	87.2	99.6	52.24	35.97	68.86
12	478	CHARGING	10-10-25 13:06:47	10-10-25 13:28:43	21.93	87.2	100.0	99.6	53.93	51.23	94.99
12	479	DISCHARGING	10-10-25 13:28:44	10-10-25 20:53:28	444.74	100.0	77.2	99.6	96.06	85.32	88.82
12	480	CHARGING	10-10-25 20:53:29	10-10-25 21:09:57	16.46	77.2	84.8	99.6	32.02	55.7	26.06
12	481	DISCHARGING	10-10-25 21:09:58	11-10-25 04:58:56	468.96	84.8	32.0	99.6	222.45	218.94	98.42
12	488	CHARGING	11-10-25 06:45:13	11-10-25 09:06:07	140.91	32.0	100.0	99.6	286.49	277.0	96.69
12	491	DISCHARGING	11-10-25 09:20:13	11-10-25 10:10:21	50.13	100.0	98.4	99.6	6.74	4.37	64.83
12	492	DISCHARGING	11-10-25 11:22:58	11-10-25 11:26:56	3.97	98.4	98.4	99.6	0.0	0.17	nan
12	493	DISCHARGING	11-10-25 12:22:59	11-10-25 12:27:59	5.01	98.4	98.4	99.6	0.0	0.17	nan
12	494	DISCHARGING	11-10-25 13:07:39	11-10-25 19:15:46	368.11	98.4	57.6	99.6	171.89	168.05	97.76
12	499	CHARGING	11-10-25 19:19:26	11-10-25 20:05:50	46.41	57.6	90.0	99.6	136.5	170.02	75.44
12	500	DISCHARGING	11-10-25 20:05:51	12-10-25 00:23:05	257.23	90.0	47.2	99.6	180.32	185.04	97.38
12	501	DISCHARGING	12-10-25 00:36:49	12-10-25 00:40:37	3.8	47.2	47.2	99.6	0.0	0.81	nan
12	502	DISCHARGING	12-10-25 02:22:31	12-10-25 02:32:48	10.29	47.2	47.2	99.6	0.0	1.78	nan
12	503	CHARGING	12-10-25 02:32:49	12-10-25 04:37:00	124.18	47.2	100.0	99.6	222.45	217.72	97.87
12	504	DISCHARGING	12-10-25 04:37:01	12-10-25 04:43:08	6.11	100.0	99.6	99.6	1.68	0.6	35.41
12	505	DISCHARGING	12-10-25 04:51:25	12-10-25 04:54:23	2.98	99.6	99.6	99.6	0.0	3.28	nan
12	506	DISCHARGING	12-10-25 09:46:53	12-10-25 10:04:03	17.16	99.6	99.2	99.6	1.68	6.49	-185.16
12	507	DISCHARGING	12-10-25 10:14:27	12-10-25 10:55:07	40.68	99.2	98.0	99.6	5.06	2.1	41.62
12	509	DISCHARGING	12-10-25 13:35:41	12-10-25 18:59:59	324.3	98.0	79.2	99.6	79.21	71.85	90.71
12	510	CHARGING	12-10-25 19:00:01	12-10-25 19:01:46	1.76	79.2	79.6	99.6	1.68	1.27	75.15
12	514	CHARGING	12-10-25 19:05:09	12-10-25 19:42:22	37.22	79.6	90.0	99.6	43.82	77.16	23.89
12	515	DISCHARGING	12-10-25 19:42:23	13-10-25 01:37:00	354.62	90.0	39.6	99.6	212.34	214.89	98.8
12	516	CHARGING	13-10-25 01:37:01	13-10-25 02:46:42	69.68	39.6	100.0	99.6	254.47	238.09	93.56

Vehicle 12 – Session SoC Accuracy (Page 5/11)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
12	522	DISCHARGING	13-10-25 05:06:50	13-10-25 07:11:52	125.04	100.0	97.2	99.6	11.8	6.57	55.66
12	523	CHARGING	13-10-25 07:11:53	13-10-25 07:28:00	16.11	97.2	100.0	99.6	11.8	12.9	90.63
12	524	DISCHARGING	13-10-25 07:28:01	13-10-25 07:32:51	4.84	100.0	99.6	99.6	1.68	0.1	6.18
12	526	DISCHARGING	13-10-25 13:47:04	13-10-25 19:32:58	345.9	99.6	59.6	99.6	168.52	170.1	99.06
12	527	CHARGING	13-10-25 19:34:08	13-10-25 20:18:22	44.22	59.6	91.2	99.6	133.13	162.95	77.61
12	528	DISCHARGING	13-10-25 20:18:23	14-10-25 00:59:56	281.56	91.2	50.0	99.6	173.58	173.25	99.81
12	529	CHARGING	14-10-25 00:59:57	14-10-25 05:37:33	277.6	50.0	100.0	99.6	210.65	202.99	96.36
12	530	DISCHARGING	14-10-25 05:37:34	14-10-25 05:43:10	5.59	100.0	99.6	99.6	1.68	0.3	18.05
12	531	DISCHARGING	14-10-25 06:05:51	14-10-25 06:37:55	32.06	99.6	99.2	99.6	1.68	0.66	39.14
12	532	DISCHARGING	14-10-25 08:24:47	14-10-25 08:26:12	1.42	99.2	99.2	99.6	0.0	0.0	nan
12	533	DISCHARGING	14-10-25 10:34:20	14-10-25 11:24:23	50.05	99.2	98.0	99.6	5.06	3.13	61.96
12	534	DISCHARGING	14-10-25 11:39:59	14-10-25 11:40:33	0.57	98.0	98.0	99.6	0.0	0.93	nan
12	535	DISCHARGING	14-10-25 11:58:10	14-10-25 12:10:36	12.43	98.0	98.0	99.6	0.0	6.52	nan
12	537	DISCHARGING	14-10-25 13:37:32	14-10-25 19:15:46	338.23	98.0	76.4	99.6	91.0	86.14	94.66
12	538	CHARGING	14-10-25 19:15:47	14-10-25 19:22:47	6.99	76.4	78.4	99.6	8.43	10.91	70.57
12	540	CHARGING	14-10-25 19:22:49	14-10-25 19:50:44	27.91	78.4	90.8	99.6	52.24	93.37	21.27
12	541	DISCHARGING	14-10-25 19:50:45	15-10-25 01:39:35	348.83	90.8	44.0	99.45	196.87	198.81	99.01
12	542	DISCHARGING	15-10-25 02:06:08	15-10-25 02:08:00	1.88	44.0	44.0	99.2	0.0	2.97	nan
12	543	CHARGING	15-10-25 02:08:01	15-10-25 03:30:10	82.14	44.0	100.0	99.2	234.98	216.66	92.2
12	547	DISCHARGING	15-10-25 04:45:04	15-10-25 07:54:05	189.01	100.0	96.4	99.2	15.11	3.92	25.96
12	548	DISCHARGING	15-10-25 08:54:06	15-10-25 09:44:04	49.97	96.4	95.6	99.2	3.36	2.34	69.61
12	549	CHARGING	15-10-25 09:52:49	15-10-25 10:01:15	8.44	95.6	100.0	99.2	18.46	17.01	92.13
12	551	DISCHARGING	15-10-25 10:29:33	15-10-25 10:38:42	9.15	100.0	99.6	99.2	1.68	0.12	7.33
12	553	DISCHARGING	15-10-25 13:03:37	15-10-25 19:48:36	404.98	99.6	55.2	99.2	186.31	186.81	99.73
12	554	CHARGING	15-10-25 19:48:40	15-10-25 19:59:22	10.7	55.2	59.6	99.2	18.46	18.93	97.49
12	555	DISCHARGING	15-10-25 19:59:25	15-10-25 20:00:21	0.93	59.6	59.6	99.2	0.0	2.4	nan
12	556	CHARGING	15-10-25 20:00:23	15-10-25 20:41:04	40.68	59.6	91.6	99.2	134.28	156.18	83.69
12	557	DISCHARGING	15-10-25 20:41:06	16-10-25 01:21:24	280.29	91.6	46.4	99.2	189.67	186.09	98.11
12	558	CHARGING	16-10-25 01:21:44	16-10-25 03:00:38	98.89	46.4	100.0	99.2	224.91	228.6	98.36
12	568	DISCHARGING	16-10-25 04:29:44	16-10-25 05:12:00	42.27	100.0	99.2	99.2	3.36	0.46	13.58

Vehicle 12 – Session SoC Accuracy (Page 6/11)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
12	569	DISCHARGING	16-10-25 05:19:01	16-10-25 08:10:24	171.39	99.2	97.2	99.2	8.39	1.21	14.44
12	570	DISCHARGING	16-10-25 08:35:03	16-10-25 09:43:45	68.7	97.2	96.4	99.2	3.36	0.82	24.41
12	571	DISCHARGING	16-10-25 10:07:29	16-10-25 10:07:49	0.32	96.4	96.4	99.2	0.0	2.58	nan
12	572	DISCHARGING	16-10-25 11:21:21	16-10-25 12:08:21	47.0	96.4	95.6	99.2	3.36	1.32	39.47
12	573	DISCHARGING	16-10-25 12:34:34	16-10-25 20:16:51	462.28	95.6	72.8	99.2	95.67	84.74	88.57
12	574	CHARGING	16-10-25 20:16:52	16-10-25 20:24:38	7.76	72.8	76.0	99.2	13.43	13.43	99.99
12	575	DISCHARGING	16-10-25 20:24:39	16-10-25 20:25:58	1.32	76.0	76.0	99.2	0.0	2.4	nan
12	576	CHARGING	16-10-25 20:25:59	16-10-25 20:48:03	22.06	76.0	84.8	99.2	36.93	65.47	22.69
12	577	DISCHARGING	16-10-25 20:48:04	17-10-25 04:12:27	444.38	84.8	35.2	99.2	208.13	207.39	99.64
12	578	CHARGING	17-10-25 04:13:41	17-10-25 05:27:38	73.94	35.2	95.6	99.2	253.45	254.05	99.76
12	580	CHARGING	17-10-25 06:14:14	17-10-25 06:19:18	5.07	95.6	100.0	99.2	18.46	6.03	32.67
12	585	DISCHARGING	17-10-25 07:16:16	17-10-25 19:04:58	708.7	100.0	49.2	99.2	213.16	204.22	95.8
12	586	CHARGING	17-10-25 19:06:05	17-10-25 20:00:07	54.04	49.2	91.2	99.2	176.24	184.78	95.15
12	587	DISCHARGING	17-10-25 20:00:52	18-10-25 00:14:12	253.34	91.2	40.8	99.2	211.49	212.63	99.46
12	588	CHARGING	18-10-25 00:15:07	18-10-25 01:29:02	73.93	40.8	84.0	99.2	181.27	210.31	83.98
12	589	DISCHARGING	18-10-25 01:29:04	18-10-25 01:33:35	4.51	84.0	84.0	99.2	0.0	0.04	nan
12	590	CHARGING	18-10-25 01:35:08	18-10-25 01:58:43	23.6	84.0	100.0	99.2	67.14	49.84	74.23
12	591	DISCHARGING	18-10-25 01:58:44	18-10-25 02:05:06	6.36	100.0	99.6	99.2	1.68	0.26	15.8
12	592	DISCHARGING	18-10-25 04:15:15	18-10-25 05:20:09	64.9	99.6	98.4	99.2	5.04	2.82	56.04
12	593	DISCHARGING	18-10-25 07:48:42	18-10-25 09:26:54	98.21	98.4	96.0	99.2	10.07	3.79	37.63
12	594	DISCHARGING	18-10-25 09:34:18	18-10-25 11:43:29	129.18	96.0	95.6	99.2	1.68	0.21	12.66
12	597	DISCHARGING	18-10-25 13:11:56	18-10-25 13:16:41	4.76	95.6	95.6	99.2	0.0	1.08	nan
12	598	DISCHARGING	18-10-25 13:30:29	18-10-25 19:30:25	359.93	95.6	74.8	99.2	87.28	71.15	81.52
12	599	CHARGING	18-10-25 19:30:28	18-10-25 20:02:58	32.5	74.8	90.8	99.2	67.14	107.76	39.49
12	600	DISCHARGING	18-10-25 20:03:01	19-10-25 02:05:44	362.72	90.8	44.4	99.2	194.7	199.39	97.59
12	601	CHARGING	19-10-25 02:11:54	19-10-25 03:39:01	87.12	44.4	100.0	99.2	233.31	213.62	91.56
12	605	DISCHARGING	19-10-25 06:00:37	19-10-25 09:17:47	197.16	100.0	98.0	99.2	8.39	1.81	21.62
12	608	DISCHARGING	19-10-25 11:21:14	19-10-25 11:33:56	12.7	98.0	98.0	99.2	0.0	0.87	nan
12	610	DISCHARGING	19-10-25 15:31:57	19-10-25 20:39:20	307.37	98.0	62.0	99.2	151.06	151.71	99.57
12	611	CHARGING	19-10-25 20:40:37	19-10-25 20:44:09	3.53	62.0	62.4	99.2	1.68	1.16	68.9

Vehicle 12 – Session SoC Accuracy (Page 7/11)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
12	615	CHARGING	19-10-25 20:49:08	19-10-25 20:50:42	1.56	62.4	62.8	99.2	1.68	1.3	77.56
12	617	CHARGING	19-10-25 20:51:37	19-10-25 20:53:39	2.04	62.8	64.0	99.2	5.04	5.44	91.97
12	618	DISCHARGING	19-10-25 20:53:43	19-10-25 20:55:51	2.13	64.0	64.0	99.2	0.0	1.8	nan
12	619	CHARGING	19-10-25 20:55:53	19-10-25 21:39:41	43.81	64.0	86.4	99.2	93.99	116.37	76.19
12	620	DISCHARGING	19-10-25 21:39:43	20-10-25 01:07:31	207.81	86.4	51.2	99.2	147.71	147.73	99.98
12	621	DISCHARGING	20-10-25 01:14:50	20-10-25 01:15:33	0.71	51.2	51.2	99.2	0.0	0.0	nan
12	622	DISCHARGING	20-10-25 02:03:51	20-10-25 02:21:15	17.41	51.2	51.2	99.2	0.0	0.18	nan
12	623	DISCHARGING	20-10-25 04:16:40	20-10-25 04:51:19	34.65	51.2	50.8	99.2	1.68	0.18	10.63
12	624	CHARGING	20-10-25 04:53:22	20-10-25 06:12:19	78.95	50.8	100.0	99.2	206.45	205.56	99.57
12	627	DISCHARGING	20-10-25 08:50:35	20-10-25 09:09:41	19.1	100.0	99.2	99.2	3.36	2.69	80.19
12	628	DISCHARGING	20-10-25 12:36:32	20-10-25 12:39:58	3.44	99.2	99.2	99.2	0.0	0.96	nan
12	629	DISCHARGING	20-10-25 12:46:10	20-10-25 12:52:43	6.55	99.2	99.2	99.2	0.0	0.64	nan
12	630	DISCHARGING	20-10-25 13:15:40	20-10-25 18:55:29	339.81	99.2	82.0	99.2	72.17	52.37	72.56
12	631	CHARGING	20-10-25 18:57:37	20-10-25 19:19:04	21.44	82.0	90.8	99.2	36.93	60.76	35.46
12	632	DISCHARGING	20-10-25 19:19:05	21-10-25 01:24:05	365.0	90.8	50.0	99.2	171.2	175.37	97.57
12	633	CHARGING	21-10-25 01:26:30	21-10-25 02:49:23	82.88	50.0	100.0	99.2	209.81	208.1	99.19
12	637	DISCHARGING	21-10-25 06:04:19	21-10-25 09:16:51	192.53	100.0	99.2	99.2	3.36	1.26	37.42
12	638	DISCHARGING	21-10-25 09:50:06	21-10-25 09:51:38	1.53	99.2	99.2	99.2	0.0	0.04	nan
12	639	DISCHARGING	21-10-25 13:55:24	21-10-25 19:51:17	355.89	99.2	56.8	99.2	177.92	174.18	97.9
12	640	CHARGING	21-10-25 19:51:18	21-10-25 20:41:00	49.69	56.8	91.2	99.2	144.35	168.33	83.38
12	641	DISCHARGING	21-10-25 20:41:01	22-10-25 01:52:16	311.26	91.2	38.8	99.2	219.88	218.04	99.16
12	642	DISCHARGING	22-10-25 01:57:54	22-10-25 01:59:18	1.4	38.8	38.8	99.2	0.0	0.65	nan
12	643	DISCHARGING	22-10-25 03:27:57	22-10-25 03:56:11	28.23	38.8	38.0	99.2	3.36	1.77	52.71
12	644	DISCHARGING	22-10-25 04:06:42	22-10-25 04:31:54	25.2	38.0	37.2	99.2	3.36	2.06	61.27
12	645	DISCHARGING	22-10-25 04:59:04	22-10-25 05:06:05	7.02	37.2	36.8	99.2	1.68	1.14	67.74
12	646	CHARGING	22-10-25 05:07:08	22-10-25 07:15:19	128.2	36.8	100.0	99.2	265.2	268.38	98.8
12	647	DISCHARGING	22-10-25 07:15:20	22-10-25 07:39:07	23.77	100.0	99.6	99.2	1.68	0.38	22.68
12	648	DISCHARGING	22-10-25 10:51:14	22-10-25 11:51:37	60.39	99.6	98.4	99.2	5.04	2.83	56.19
12	649	DISCHARGING	22-10-25 12:48:37	22-10-25 19:08:59	380.37	98.4	76.0	99.2	93.99	89.28	94.98
12	652	CHARGING	22-10-25 19:18:23	22-10-25 20:01:21	42.97	76.0	100.0	99.2	100.71	107.97	92.79

Vehicle 12 – Session SoC Accuracy (Page 8/11)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
12	653	DISCHARGING	22-10-25 20:01:22	23-10-25 02:46:09	404.78	100.0	46.0	99.2	226.59	230.93	98.09
12	654	CHARGING	23-10-25 02:46:10	23-10-25 03:21:33	35.38	46.0	52.0	99.2	25.18	26.11	96.3
12	657	CHARGING	23-10-25 03:31:21	23-10-25 05:32:30	121.15	52.0	100.0	99.2	201.42	214.1	93.7
12	661	DISCHARGING	23-10-25 07:07:53	23-10-25 07:24:12	16.32	100.0	99.6	99.2	1.68	0.64	37.84
12	662	DISCHARGING	23-10-25 08:20:56	23-10-25 08:37:04	16.13	99.6	98.8	99.2	3.36	1.57	46.66
12	663	DISCHARGING	23-10-25 09:06:13	23-10-25 12:10:05	183.86	98.8	98.0	99.2	3.36	2.32	68.98
12	664	DISCHARGING	23-10-25 12:23:05	23-10-25 19:23:22	420.28	98.0	56.8	99.2	172.88	172.2	99.61
12	665	CHARGING	23-10-25 19:23:48	23-10-25 19:27:37	3.81	56.8	58.4	99.2	6.71	6.33	94.3
12	666	DISCHARGING	23-10-25 19:27:40	23-10-25 19:29:25	1.75	58.4	58.4	99.2	0.0	0.03	nan
12	667	CHARGING	23-10-25 19:29:37	23-10-25 19:33:15	3.64	58.4	59.6	99.2	5.04	5.86	83.54
12	668	DISCHARGING	23-10-25 19:33:17	23-10-25 19:35:56	2.64	59.6	59.6	99.2	0.0	0.12	nan
12	669	CHARGING	23-10-25 19:36:52	23-10-25 19:39:45	2.88	59.6	60.0	99.2	1.68	1.42	84.35
12	670	DISCHARGING	23-10-25 19:39:48	23-10-25 19:42:00	2.2	60.0	60.0	99.2	0.0	1.56	nan
12	671	CHARGING	23-10-25 19:42:33	23-10-25 19:50:08	7.58	60.0	60.8	99.2	3.36	4.76	58.21
12	673	CHARGING	23-10-25 19:53:35	23-10-25 20:29:50	36.25	60.8	86.0	99.2	105.74	121.6	85.01
12	674	DISCHARGING	23-10-25 20:29:52	24-10-25 00:48:40	258.79	86.0	44.0	99.2	176.24	183.38	95.95
12	675	CHARGING	24-10-25 00:49:37	24-10-25 02:22:51	93.23	44.0	100.0	99.2	234.98	245.69	95.44
12	676	DISCHARGING	24-10-25 02:22:52	24-10-25 05:35:23	192.52	100.0	88.4	99.2	48.68	45.33	93.12
12	677	CHARGING	24-10-25 05:36:35	24-10-25 05:38:15	1.67	88.4	88.8	99.2	1.68	0.88	52.21
12	679	CHARGING	24-10-25 05:40:06	24-10-25 05:53:39	13.54	88.8	91.6	99.2	11.75	23.88	-3.22
12	680	DISCHARGING	24-10-25 05:53:40	24-10-25 13:39:42	466.03	91.6	43.2	99.2	203.09	206.17	98.49
12	682	DISCHARGING	24-10-25 13:44:08	24-10-25 13:46:57	2.81	43.2	43.2	99.2	0.0	0.04	nan
12	683	CHARGING	24-10-25 13:46:59	24-10-25 15:00:32	73.57	43.2	98.8	99.2	233.31	242.2	96.19
12	684	DISCHARGING	24-10-25 15:00:34	24-10-25 21:15:01	374.46	98.8	58.4	99.2	169.52	167.04	98.53
12	685	CHARGING	24-10-25 21:17:04	24-10-25 21:31:02	13.97	58.4	62.4	99.2	16.78	17.82	93.82
12	687	CHARGING	24-10-25 21:35:11	24-10-25 21:50:56	15.75	62.4	69.6	99.2	30.21	32.26	93.21
12	689	CHARGING	24-10-25 21:54:56	24-10-25 22:23:34	28.62	69.6	91.2	99.2	90.64	96.87	93.13
12	690	DISCHARGING	24-10-25 22:23:36	25-10-25 04:26:07	362.52	91.2	43.2	99.2	201.42	196.49	97.55
12	692	DISCHARGING	25-10-25 04:46:11	25-10-25 04:47:28	1.29	43.2	43.2	99.2	0.0	0.62	nan
12	693	DISCHARGING	25-10-25 05:14:45	25-10-25 05:17:03	2.3	43.2	43.2	99.2	0.0	0.01	nan

Vehicle 12 – Session SoC Accuracy (Page 9/11)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
12	694	CHARGING	25-10-25 05:18:59	25-10-25 05:23:28	4.48	43.2	43.2	99.2	0.0	7.5	nan
12	696	CHARGING	25-10-25 05:23:30	25-10-25 08:08:07	164.62	43.2	100.0	99.2	238.34	248.33	95.81
12	697	DISCHARGING	25-10-25 08:08:08	25-10-25 08:17:20	9.21	100.0	99.6	99.2	1.68	6.72	-200.44
12	698	DISCHARGING	25-10-25 09:35:54	25-10-25 09:38:58	3.06	99.6	99.6	99.2	0.0	0.02	nan
12	699	DISCHARGING	25-10-25 11:22:11	25-10-25 16:30:35	308.39	99.6	81.2	99.2	77.21	65.95	85.42
12	700	CHARGING	25-10-25 16:30:36	25-10-25 16:58:03	27.45	81.2	90.0	99.2	36.93	53.84	54.2
12	701	DISCHARGING	25-10-25 16:58:05	25-10-25 22:56:25	358.33	90.0	37.2	99.2	221.56	214.28	96.72
12	702	CHARGING	25-10-25 22:56:26	26-10-25 00:40:20	103.9	37.2	100.0	99.2	263.52	262.53	99.63
12	703	CHARGING	26-10-25 01:10:02	26-10-25 01:32:45	22.71	nan	nan	nan	nan	0.0	nan
12	704	DISCHARGING	26-10-25 01:32:46	26-10-25 08:08:30	395.74	100.0	53.2	99.2	196.38	195.35	99.48
12	705	CHARGING	26-10-25 08:08:32	26-10-25 08:10:54	2.38	53.2	53.6	99.2	1.68	1.87	88.85
12	707	CHARGING	26-10-25 08:11:07	26-10-25 08:13:19	2.19	53.6	54.0	99.2	1.68	1.41	83.81
12	709	CHARGING	26-10-25 08:13:27	26-10-25 08:15:30	2.05	54.0	54.0	99.2	0.0	0.13	nan
12	711	CHARGING	26-10-25 08:16:51	26-10-25 08:17:43	0.86	54.0	54.0	99.2	0.0	0.35	nan
12	712	DISCHARGING	26-10-25 08:17:46	26-10-25 08:19:50	2.07	54.0	54.0	99.2	0.0	0.2	nan
12	713	CHARGING	26-10-25 08:19:57	26-10-25 09:09:18	49.35	54.0	86.0	99.2	134.28	158.36	82.07
12	714	DISCHARGING	26-10-25 09:09:20	26-10-25 13:44:38	275.3	86.0	39.2	99.2	196.38	197.76	99.3
12	715	CHARGING	26-10-25 13:45:33	26-10-25 13:47:40	2.11	39.2	39.2	99.2	0.0	1.16	nan
12	717	CHARGING	26-10-25 13:47:42	26-10-25 15:02:44	75.04	39.2	92.8	99.2	224.91	242.29	92.28
12	718	DISCHARGING	26-10-25 15:02:46	26-10-25 19:44:05	281.32	92.8	72.0	99.2	87.28	78.12	89.5
12	719	CHARGING	26-10-25 19:44:40	26-10-25 19:47:01	2.35	72.0	72.4	99.2	1.68	4.05	-41.15
12	723	CHARGING	26-10-25 19:47:19	26-10-25 20:16:33	29.24	72.4	91.2	99.2	78.89	97.07	76.95
12	724	DISCHARGING	26-10-25 20:16:35	27-10-25 02:48:06	391.52	91.2	43.2	99.2	201.42	203.25	99.09
12	727	DISCHARGING	27-10-25 07:10:26	27-10-25 07:13:46	3.34	43.2	43.2	99.2	0.0	0.12	nan
12	728	CHARGING	27-10-25 07:13:47	27-10-25 08:19:38	65.85	43.2	100.0	99.2	238.34	224.08	94.02
12	729	CHARGING	27-10-25 08:37:30	27-10-25 08:37:38	0.13	100.0	100.0	99.2	0.0	5.98	nan
12	730	DISCHARGING	27-10-25 08:37:39	27-10-25 08:37:58	0.32	100.0	100.0	99.2	0.0	0.0	nan
12	732	DISCHARGING	27-10-25 09:45:24	27-10-25 20:05:27	620.04	100.0	56.0	99.2	184.63	176.7	95.71
12	735	CHARGING	27-10-25 20:06:51	27-10-25 20:12:27	5.6	56.0	56.0	99.2	0.0	0.06	nan
12	737	CHARGING	27-10-25 20:12:29	27-10-25 21:00:05	47.6	56.0	87.6	99.2	132.6	154.35	83.6

Vehicle 12 – Session SoC Accuracy (Page 10/11)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
12	738	DISCHARGING	27-10-25 21:00:06	28-10-25 00:31:04	210.97	87.6	42.8	99.2	187.99	186.04	98.96
12	739	CHARGING	28-10-25 00:32:18	28-10-25 02:19:28	107.17	42.8	100.0	99.2	240.02	240.2	99.93
12	740	DISCHARGING	28-10-25 02:19:29	28-10-25 06:26:52	247.39	100.0	83.6	99.2	68.82	61.12	88.82
12	741	CHARGING	28-10-25 06:26:53	28-10-25 06:52:36	25.72	83.6	92.0	99.2	35.25	57.04	38.18
12	742	DISCHARGING	28-10-25 06:52:38	28-10-25 14:43:25	470.79	92.0	40.8	99.2	214.84	221.45	96.92
12	743	CHARGING	28-10-25 14:43:26	28-10-25 15:42:30	59.07	40.8	93.2	99.2	219.88	225.87	97.28
12	744	DISCHARGING	28-10-25 15:42:34	28-10-25 21:24:11	341.62	93.2	53.2	99.2	167.85	169.36	99.1
12	745	CHARGING	28-10-25 21:24:12	28-10-25 22:12:48	48.6	53.2	92.0	99.2	162.81	162.28	99.68
12	746	DISCHARGING	28-10-25 22:12:49	29-10-25 03:50:50	338.02	92.0	47.6	99.2	186.31	191.59	97.16
12	747	DISCHARGING	29-10-25 04:42:29	29-10-25 05:26:19	43.84	47.6	47.2	99.2	1.68	0.35	20.9
12	748	CHARGING	29-10-25 05:29:10	29-10-25 10:07:50	278.68	47.2	100.0	99.2	221.56	239.32	91.98
12	749	DISCHARGING	29-10-25 10:07:51	29-10-25 10:15:50	7.98	100.0	99.6	99.2	1.68	0.78	46.79
12	750	DISCHARGING	29-10-25 10:44:54	29-10-25 11:36:04	51.16	99.6	98.8	99.2	3.36	0.39	11.69
12	751	DISCHARGING	29-10-25 11:57:28	29-10-25 11:59:37	2.14	98.8	98.8	99.2	0.0	0.96	nan
12	752	DISCHARGING	29-10-25 12:32:40	29-10-25 16:28:04	235.4	98.8	83.2	99.2	65.46	62.45	95.41
12	753	CHARGING	29-10-25 16:28:05	29-10-25 17:00:58	32.88	83.2	92.4	99.2	38.6	66.3	28.27
12	754	DISCHARGING	29-10-25 17:00:59	29-10-25 23:31:53	390.89	92.4	48.0	99.2	186.31	187.62	99.3
12	755	CHARGING	29-10-25 23:31:54	30-10-25 01:17:03	105.14	48.0	100.0	99.2	218.2	207.54	95.11
12	351	DISCHARGING	30-09-25 18:30:00	30-09-25 19:36:13	66.22	77.6	72.4	99.6	21.91	20.86	95.24
12	352	CHARGING	30-09-25 19:36:14	30-09-25 20:12:59	36.74	72.4	90.8	99.6	77.52	120.43	44.64
12	353	DISCHARGING	30-09-25 20:13:00	01-10-25 02:02:02	349.05	90.8	48.0	99.6	180.32	183.77	98.09
12	759	CHARGING	30-10-25 01:19:10	30-10-25 01:19:44	0.57	100.0	100.0	99.2	0.0	0.42	nan
12	762	DISCHARGING	30-10-25 01:40:18	30-10-25 08:19:21	399.06	100.0	49.6	99.2	211.49	197.07	93.18
12	763	CHARGING	30-10-25 08:19:23	30-10-25 09:12:19	52.93	49.6	84.8	99.2	147.71	176.47	80.52
12	764	DISCHARGING	30-10-25 09:12:22	30-10-25 14:45:21	332.98	84.8	31.6	99.2	223.24	224.99	99.21
12	765	CHARGING	30-10-25 14:45:22	30-10-25 14:48:31	3.15	31.6	31.6	99.2	0.0	0.25	nan
12	767	CHARGING	30-10-25 14:48:33	30-10-25 14:51:00	2.46	31.6	32.0	99.2	1.68	2.69	39.58
12	769	CHARGING	30-10-25 14:51:16	30-10-25 14:56:20	5.07	32.0	32.0	99.2	0.0	1.52	nan
12	770	DISCHARGING	30-10-25 14:56:21	30-10-25 14:56:26	0.08	32.0	32.0	99.2	0.0	0.0	nan
12	771	CHARGING	30-10-25 14:56:27	30-10-25 16:06:15	69.79	32.0	92.8	99.2	255.13	258.19	98.8

Vehicle 12 – Session SoC Accuracy (Page 11/11)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
12	772	DISCHARGING	30-10-25 16:06:16	30-10-25 20:21:44	255.46	92.8	72.8	99.2	83.92	77.94	92.87
12	773	CHARGING	30-10-25 20:21:45	30-10-25 20:47:59	26.23	72.8	90.4	99.2	73.85	94.72	71.74
12	774	DISCHARGING	30-10-25 20:48:00	31-10-25 02:34:03	346.06	90.4	44.0	99.2	194.7	200.98	96.78
12	775	DISCHARGING	31-10-25 02:39:17	31-10-25 02:43:06	3.82	44.0	43.6	99.2	1.68	0.2	12.08
12	776	CHARGING	31-10-25 02:43:43	31-10-25 03:53:13	69.51	43.6	100.0	99.2	236.66	231.72	97.91
12	779	DISCHARGING	31-10-25 05:14:27	31-10-25 05:17:07	2.66	100.0	99.6	99.2	1.68	0.13	7.98
12	780	DISCHARGING	31-10-25 07:19:20	31-10-25 08:00:54	41.57	99.6	98.4	99.2	5.04	5.59	88.96
12	781	DISCHARGING	31-10-25 09:29:36	31-10-25 09:34:52	5.27	98.4	98.0	99.2	1.68	0.5	29.59
12	782	DISCHARGING	31-10-25 11:39:32	31-10-25 11:42:36	3.08	98.0	98.0	99.2	0.0	0.08	nan
12	783	DISCHARGING	31-10-25 12:23:45	31-10-25 13:05:52	42.11	98.0	97.6	99.2	1.68	0.04	2.65
12	786	DISCHARGING	31-10-25 14:13:10	31-10-25 18:29:59	256.83	97.6	72.4	99.2	105.74	105.98	99.77

Vehicle 13 – Session SoC Accuracy (Page 1/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
13	790	CHARGING	01-10-25 00:35:41	01-10-25 02:04:48	89.12	40.4	100.0	97.6	246.06	246.57	99.79
13	792	DISCHARGING	01-10-25 02:51:54	01-10-25 08:34:24	342.5	100.0	52.0	97.6	198.17	199.54	99.31
13	793	CHARGING	01-10-25 08:34:25	01-10-25 09:07:45	33.33	52.0	80.0	97.6	115.6	125.08	91.8
13	794	DISCHARGING	01-10-25 09:07:46	01-10-25 14:45:32	337.77	80.0	39.2	97.6	168.44	162.28	96.34
13	795	CHARGING	01-10-25 14:45:33	01-10-25 14:47:24	1.85	39.2	39.2	97.6	0.0	0.34	nan
13	797	CHARGING	01-10-25 14:47:26	01-10-25 14:47:51	0.42	39.2	39.2	97.6	0.0	0.65	nan
13	799	CHARGING	01-10-25 14:47:53	01-10-25 14:50:47	2.89	39.2	39.6	97.6	1.65	2.16	69.22
13	803	CHARGING	01-10-25 14:51:51	01-10-25 16:08:44	76.88	39.6	100.0	97.6	249.36	259.17	96.07
13	804	DISCHARGING	01-10-25 16:08:45	01-10-25 20:15:47	247.03	100.0	62.8	97.6	153.58	154.44	99.44
13	805	CHARGING	01-10-25 20:15:48	01-10-25 20:40:59	25.19	62.8	80.0	97.6	71.01	78.99	88.77
13	806	DISCHARGING	01-10-25 20:41:00	02-10-25 00:41:55	240.91	80.0	42.4	97.6	155.23	152.48	98.23
13	807	CHARGING	02-10-25 00:41:56	02-10-25 02:06:51	84.91	42.4	56.8	97.6	59.45	61.29	96.9
13	809	CHARGING	02-10-25 02:06:53	02-10-25 07:34:28	327.59	56.8	100.0	97.6	178.35	187.58	94.82
13	813	DISCHARGING	02-10-25 15:28:37	02-10-25 20:44:45	316.14	100.0	59.2	97.6	168.44	164.4	97.6
13	814	CHARGING	02-10-25 20:44:46	02-10-25 21:10:26	25.66	59.2	80.0	97.6	85.87	93.79	90.78
13	815	DISCHARGING	02-10-25 21:10:28	03-10-25 01:47:04	276.6	80.0	40.4	97.6	163.49	162.85	99.61
13	816	CHARGING	03-10-25 01:47:07	03-10-25 03:04:41	77.57	40.4	100.0	97.6	246.06	259.23	94.65
13	817	DISCHARGING	03-10-25 03:15:48	03-10-25 06:12:28	176.67	100.0	90.0	97.6	41.28	31.76	76.92
13	818	DISCHARGING	03-10-25 06:18:42	03-10-25 09:06:24	167.7	90.0	55.6	97.6	142.02	137.57	96.87
13	819	CHARGING	03-10-25 09:06:25	03-10-25 09:38:46	32.34	55.6	80.0	97.6	100.74	107.47	93.31
13	820	DISCHARGING	03-10-25 09:38:48	03-10-25 13:22:37	223.82	80.0	36.4	97.6	180.0	173.5	96.39
13	821	CHARGING	03-10-25 13:22:38	03-10-25 16:38:17	195.64	36.4	100.0	97.6	262.57	275.34	95.14
13	822	DISCHARGING	03-10-25 16:38:18	04-10-25 02:27:48	589.5	100.0	37.6	97.6	257.62	253.05	98.23
13	823	CHARGING	04-10-25 02:27:50	04-10-25 04:04:51	97.01	37.6	100.0	97.6	257.62	270.1	95.15
13	824	DISCHARGING	04-10-25 04:04:53	04-10-25 09:32:44	327.86	100.0	56.4	97.6	180.0	177.56	98.64
13	825	CHARGING	04-10-25 09:33:32	04-10-25 10:03:55	30.38	56.4	79.6	97.6	95.78	102.26	93.23
13	826	DISCHARGING	04-10-25 10:03:56	04-10-25 15:40:46	336.84	79.6	40.8	97.6	160.18	160.5	99.8
13	827	CHARGING	04-10-25 15:40:47	04-10-25 16:40:16	59.48	40.8	85.6	97.6	184.96	228.37	76.53
13	828	DISCHARGING	04-10-25 16:40:19	04-10-25 21:57:07	316.8	85.6	48.4	97.54	153.48	153.91	99.72
13	829	CHARGING	04-10-25 21:57:08	04-10-25 22:36:15	39.13	48.4	80.0	97.2	129.93	143.23	89.76

Vehicle 13 – Session SoC Accuracy (Page 2/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
13	830	DISCHARGING	04-10-25 22:36:16	05-10-25 02:58:53	262.61	80.0	40.4	97.2	162.82	165.33	98.45
13	831	CHARGING	05-10-25 02:58:56	05-10-25 04:09:34	70.65	40.4	100.0	97.2	245.05	224.28	91.52
13	834	DISCHARGING	05-10-25 04:09:54	05-10-25 09:38:59	329.08	100.0	57.6	97.2	174.33	178.76	97.46
13	835	CHARGING	05-10-25 09:39:13	05-10-25 10:16:05	36.87	57.6	80.4	97.2	93.74	116.84	75.36
13	836	DISCHARGING	05-10-25 10:16:06	05-10-25 16:07:49	351.71	80.4	34.4	97.2	189.13	187.43	99.1
13	837	CHARGING	05-10-25 16:08:30	05-10-25 17:20:06	71.61	34.4	90.0	97.2	228.6	259.98	86.27
13	838	DISCHARGING	05-10-25 17:20:09	06-10-25 02:17:41	537.54	90.0	30.8	97.2	243.4	246.07	98.91
13	839	CHARGING	06-10-25 02:17:44	06-10-25 03:43:44	86.0	30.8	100.0	97.2	284.52	265.34	93.26
13	840	DISCHARGING	06-10-25 03:43:46	06-10-25 04:09:18	25.53	100.0	98.8	97.2	4.93	4.95	99.7
13	841	DISCHARGING	06-10-25 04:24:29	06-10-25 09:03:52	279.38	98.8	53.2	97.2	187.49	186.28	99.36
13	842	CHARGING	06-10-25 09:04:20	06-10-25 09:45:45	41.41	53.2	80.0	97.2	110.19	127.78	84.04
13	843	DISCHARGING	06-10-25 09:45:46	06-10-25 15:38:33	352.78	80.0	38.0	97.2	172.69	173.49	99.53
13	844	CHARGING	06-10-25 15:38:34	06-10-25 16:43:22	64.8	38.0	89.6	97.2	212.16	240.16	86.8
13	845	DISCHARGING	06-10-25 16:43:23	06-10-25 21:53:29	310.1	89.6	50.8	97.2	159.53	163.32	97.62
13	846	CHARGING	06-10-25 21:53:31	06-10-25 22:24:58	31.45	50.8	76.8	97.2	106.9	114.16	93.21
13	847	DISCHARGING	06-10-25 22:24:59	07-10-25 04:42:42	377.73	76.8	38.0	97.2	159.53	163.7	97.39
13	849	CHARGING	07-10-25 06:06:07	07-10-25 07:33:02	86.91	38.0	100.0	97.2	254.92	253.68	99.52
13	852	DISCHARGING	07-10-25 08:21:46	07-10-25 08:27:46	6.0	100.0	99.6	97.2	1.64	0.59	35.63
13	853	DISCHARGING	07-10-25 11:43:18	07-10-25 13:01:53	78.59	99.6	96.8	97.2	11.51	10.54	91.56
13	854	DISCHARGING	07-10-25 13:09:41	07-10-25 20:14:36	424.92	96.8	53.6	97.2	177.62	177.79	99.9
13	857	CHARGING	07-10-25 20:15:24	07-10-25 20:17:14	1.84	53.6	53.6	97.2	0.0	1.04	nan
13	861	CHARGING	07-10-25 20:18:20	07-10-25 20:51:44	33.4	53.6	79.2	97.2	105.26	113.23	92.42
13	862	DISCHARGING	07-10-25 20:51:45	08-10-25 01:05:50	254.07	79.2	43.6	97.2	146.37	151.09	96.78
13	863	CHARGING	08-10-25 01:07:03	08-10-25 03:34:37	147.56	43.6	100.0	97.2	231.89	246.87	93.54
13	864	DISCHARGING	08-10-25 09:28:14	08-10-25 10:02:21	34.12	100.0	99.2	97.2	3.29	1.15	34.88
13	865	DISCHARGING	08-10-25 11:52:59	08-10-25 11:55:16	2.28	99.2	99.2	97.2	0.0	0.16	nan
13	866	DISCHARGING	08-10-25 12:18:21	08-10-25 12:21:47	3.44	99.2	99.2	97.2	0.0	0.06	nan
13	867	DISCHARGING	08-10-25 13:04:57	08-10-25 20:59:14	474.28	99.2	61.6	97.2	154.6	157.53	98.1
13	868	CHARGING	08-10-25 20:59:15	08-10-25 21:25:59	26.73	61.6	80.0	97.2	75.65	84.6	88.17
13	869	DISCHARGING	08-10-25 21:26:00	09-10-25 02:05:24	279.4	80.0	40.8	97.2	161.17	162.17	99.38

Vehicle 13 – Session SoC Accuracy (Page 3/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
13	872	DISCHARGING	09-10-25 05:23:12	09-10-25 05:30:42	7.5	40.8	40.8	97.2	0.0	0.16	nan
13	873	CHARGING	09-10-25 07:01:22	09-10-25 08:27:02	85.67	40.8	100.0	97.2	243.4	256.22	94.73
13	874	CHARGING	09-10-25 11:36:23	09-10-25 11:36:30	0.11	100.0	100.0	97.2	0.0	5.9	nan
13	875	DISCHARGING	09-10-25 11:36:31	09-10-25 12:26:26	49.93	100.0	98.4	97.2	6.58	3.52	53.56
13	876	DISCHARGING	09-10-25 13:13:02	09-10-25 13:15:29	2.45	98.4	98.4	97.2	0.0	2.29	nan
13	877	DISCHARGING	09-10-25 13:22:27	09-10-25 20:09:52	407.43	98.4	54.4	97.2	180.91	186.42	96.95
13	878	CHARGING	09-10-25 20:09:53	09-10-25 20:43:36	33.71	54.4	80.0	97.2	105.26	113.03	92.61
13	879	DISCHARGING	09-10-25 20:43:37	10-10-25 01:11:16	267.64	80.0	45.2	97.2	143.08	146.29	97.76
13	880	CHARGING	10-10-25 01:11:18	10-10-25 02:23:19	72.01	45.2	100.0	97.2	225.31	236.63	94.98
13	882	DISCHARGING	10-10-25 02:47:24	10-10-25 08:21:24	334.01	100.0	54.4	97.2	187.49	186.11	99.26
13	883	CHARGING	10-10-25 08:21:25	10-10-25 08:24:07	2.7	54.4	54.8	97.2	1.64	0.7	42.28
13	887	CHARGING	10-10-25 08:28:22	10-10-25 08:30:03	1.7	54.8	54.8	97.2	0.0	0.66	nan
13	888	DISCHARGING	10-10-25 08:30:05	10-10-25 08:36:07	6.02	54.8	54.8	97.2	0.0	1.8	nan
13	889	CHARGING	10-10-25 08:36:08	10-10-25 09:11:29	35.35	54.8	75.2	97.2	83.88	91.99	90.32
13	890	DISCHARGING	10-10-25 09:11:30	10-10-25 14:05:50	294.33	75.2	37.6	97.2	154.6	152.85	98.87
13	891	CHARGING	10-10-25 14:05:51	10-10-25 15:12:11	66.34	37.6	85.6	97.2	197.36	239.62	78.58
13	892	DISCHARGING	10-10-25 15:12:13	10-10-25 21:01:24	349.19	85.6	45.6	97.2	164.46	164.24	99.86
13	893	CHARGING	10-10-25 21:01:25	10-10-25 21:43:03	41.62	45.6	81.6	97.2	148.02	156.33	94.38
13	894	DISCHARGING	10-10-25 21:43:04	11-10-25 01:55:50	252.77	81.6	42.0	97.2	162.82	164.83	98.76
13	895	CHARGING	11-10-25 01:55:51	11-10-25 03:07:12	71.36	42.0	100.0	97.2	238.47	222.43	93.27
13	896	DISCHARGING	11-10-25 03:07:13	11-10-25 08:48:31	341.3	100.0	52.8	97.2	194.07	193.65	99.79
13	897	CHARGING	11-10-25 08:48:59	11-10-25 09:21:13	32.23	52.8	80.0	97.2	111.83	120.68	92.09
13	898	DISCHARGING	11-10-25 09:21:15	11-10-25 13:58:25	277.16	80.0	38.0	97.2	172.69	167.76	97.15
13	899	CHARGING	11-10-25 13:58:26	11-10-25 15:12:09	73.72	38.0	94.8	97.2	233.54	264.06	86.93
13	900	DISCHARGING	11-10-25 15:12:10	11-10-25 20:04:45	292.58	94.8	50.8	97.2	180.91	183.11	98.78
13	901	CHARGING	11-10-25 20:04:46	11-10-25 20:46:58	42.21	50.8	76.0	97.2	103.61	109.34	94.47
13	902	DISCHARGING	11-10-25 20:46:59	12-10-25 00:51:26	244.44	76.0	39.2	97.2	151.3	151.38	99.95
13	903	CHARGING	12-10-25 00:51:27	12-10-25 02:21:48	90.36	39.2	100.0	97.2	249.98	249.55	99.83
13	906	DISCHARGING	12-10-25 02:41:38	12-10-25 08:47:02	365.41	100.0	49.6	97.2	207.22	207.69	99.77
13	907	CHARGING	12-10-25 08:47:03	12-10-25 09:24:02	36.98	49.6	80.0	97.2	124.99	134.87	92.1

Vehicle 13 – Session SoC Accuracy (Page 4/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
13	908	DISCHARGING	12-10-25 09:24:03	12-10-25 13:51:22	267.32	80.0	38.0	97.2	172.69	169.48	98.14
13	909	CHARGING	12-10-25 13:51:23	12-10-25 15:08:06	76.72	38.0	100.0	97.2	254.92	265.17	95.98
13	910	DISCHARGING	12-10-25 15:08:07	12-10-25 20:33:21	325.23	100.0	53.6	97.2	190.78	195.93	97.3
13	911	CHARGING	12-10-25 20:33:22	12-10-25 20:42:54	9.53	53.6	57.2	97.2	14.8	15.5	95.29
13	913	CHARGING	12-10-25 20:42:56	12-10-25 20:53:04	10.14	57.2	62.8	97.2	23.02	23.07	99.81
13	914	DISCHARGING	12-10-25 20:53:05	12-10-25 20:56:45	3.67	62.8	62.4	97.2	1.64	0.06	3.51
13	915	CHARGING	12-10-25 20:56:46	12-10-25 21:05:57	9.18	62.4	67.2	97.2	19.74	20.01	98.61
13	916	DISCHARGING	12-10-25 21:05:58	12-10-25 21:06:22	0.41	67.2	67.2	97.2	0.0	1.86	nan
13	917	CHARGING	12-10-25 21:06:23	12-10-25 21:23:49	17.43	67.2	80.0	97.2	52.63	59.12	87.67
13	918	DISCHARGING	12-10-25 21:23:50	13-10-25 01:40:18	256.47	80.0	39.2	97.2	167.75	170.07	98.62
13	919	CHARGING	13-10-25 01:42:40	13-10-25 02:53:47	71.11	39.2	100.0	97.2	249.98	261.13	95.54
13	922	DISCHARGING	13-10-25 06:33:32	13-10-25 07:02:39	29.11	100.0	99.6	97.2	1.64	1.24	75.59
13	925	DISCHARGING	13-10-25 15:26:00	13-10-25 20:49:28	323.46	99.6	61.6	97.2	156.24	153.72	98.39
13	926	CHARGING	13-10-25 20:49:29	13-10-25 21:28:22	38.89	61.6	84.8	97.2	95.39	119.97	74.23
13	927	DISCHARGING	13-10-25 21:28:24	14-10-25 02:00:25	272.02	84.8	45.6	97.2	161.17	165.1	97.56
13	930	CHARGING	14-10-25 02:01:08	14-10-25 03:10:08	69.0	45.6	100.0	97.2	223.67	218.5	97.69
13	931	DISCHARGING	14-10-25 03:10:09	14-10-25 08:53:53	343.75	100.0	60.8	97.2	161.17	163.96	98.27
13	932	CHARGING	14-10-25 08:53:54	14-10-25 08:54:18	0.39	60.8	60.8	97.2	0.0	0.0	nan
13	934	CHARGING	14-10-25 08:54:32	14-10-25 09:16:29	21.95	60.8	76.0	97.2	62.5	65.17	95.73
13	935	DISCHARGING	14-10-25 09:16:30	14-10-25 13:24:30	248.0	76.0	39.2	97.2	151.3	149.48	98.79
13	936	CHARGING	14-10-25 13:24:31	14-10-25 15:16:21	111.82	39.2	100.0	97.2	249.98	264.61	94.15
13	939	DISCHARGING	14-10-25 16:56:49	15-10-25 01:53:52	537.06	100.0	41.6	97.2	240.12	237.73	99.01
13	940	CHARGING	15-10-25 01:53:55	15-10-25 03:27:20	93.41	41.6	100.0	97.2	240.12	254.64	93.95
13	943	DISCHARGING	15-10-25 03:53:46	15-10-25 08:49:40	295.9	100.0	59.6	97.2	166.11	165.18	99.44
13	944	CHARGING	15-10-25 08:49:41	15-10-25 09:24:50	35.15	59.6	80.0	97.2	83.88	88.14	94.91
13	945	DISCHARGING	15-10-25 09:24:51	15-10-25 13:38:27	253.58	80.0	36.4	97.2	179.26	183.61	97.58
13	946	CHARGING	15-10-25 13:38:30	15-10-25 14:43:46	65.27	36.4	78.4	97.2	172.69	183.11	93.96
13	948	CHARGING	15-10-25 14:43:50	15-10-25 14:44:23	0.55	78.4	78.4	97.2	0.0	0.82	nan
13	949	DISCHARGING	15-10-25 14:44:24	15-10-25 15:42:06	57.7	78.4	77.2	97.2	4.93	1.31	26.48
13	950	CHARGING	15-10-25 15:42:07	15-10-25 16:18:19	36.2	77.2	100.0	97.2	93.74	96.47	97.1

Vehicle 13 – Session SoC Accuracy (Page 5/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
13	953	DISCHARGING	15-10-25 16:18:50	16-10-25 01:50:18	571.47	100.0	41.2	97.2	241.76	239.82	99.2
13	954	CHARGING	16-10-25 01:50:19	16-10-25 03:08:00	77.68	41.2	80.0	97.2	159.53	186.98	82.8
13	959	DISCHARGING	16-10-25 03:33:30	16-10-25 03:38:15	4.75	80.0	80.0	97.2	0.0	0.13	nan
13	960	DISCHARGING	16-10-25 03:47:36	16-10-25 05:32:45	105.14	80.0	77.6	97.2	9.87	0.68	6.9
13	961	DISCHARGING	16-10-25 07:48:30	16-10-25 07:55:00	6.51	77.6	77.6	97.2	0.0	0.54	nan
13	962	DISCHARGING	16-10-25 08:01:43	16-10-25 08:10:15	8.52	77.6	77.2	97.2	1.64	0.83	50.38
13	963	DISCHARGING	16-10-25 11:12:35	16-10-25 11:17:43	5.13	77.2	77.2	97.2	0.0	0.13	nan
13	964	CHARGING	16-10-25 11:32:21	16-10-25 12:02:37	30.25	77.2	100.0	97.2	93.74	81.53	86.97
13	965	CHARGING	16-10-25 12:39:15	16-10-25 12:39:19	0.07	100.0	100.0	97.2	0.0	4.31	nan
13	966	DISCHARGING	16-10-25 12:39:20	16-10-25 12:39:51	0.51	100.0	100.0	97.2	0.0	0.0	nan
13	967	DISCHARGING	16-10-25 12:47:53	16-10-25 12:51:12	3.33	100.0	100.0	97.2	0.0	0.01	nan
13	968	DISCHARGING	16-10-25 13:57:01	16-10-25 20:13:40	376.65	100.0	56.8	97.2	177.62	176.98	99.64
13	969	CHARGING	16-10-25 20:13:41	16-10-25 20:44:09	30.47	56.8	80.0	97.2	95.39	103.31	91.7
13	970	DISCHARGING	16-10-25 20:44:10	17-10-25 01:00:15	256.08	80.0	43.2	97.2	151.3	146.07	96.54
13	971	CHARGING	17-10-25 01:00:16	17-10-25 03:12:12	131.92	43.2	100.0	97.2	233.54	244.99	95.1
13	972	DISCHARGING	17-10-25 03:12:13	17-10-25 08:28:53	316.67	100.0	54.8	97.2	185.84	186.29	99.76
13	973	CHARGING	17-10-25 08:28:54	17-10-25 09:01:21	32.45	54.8	80.0	97.2	103.61	112.32	91.59
13	974	DISCHARGING	17-10-25 09:01:22	17-10-25 13:51:50	290.46	80.0	43.2	97.2	151.3	139.51	92.21
13	975	DISCHARGING	17-10-25 13:59:38	17-10-25 14:04:16	4.65	43.2	43.2	97.2	0.0	0.31	nan
13	978	CHARGING	17-10-25 14:04:40	17-10-25 15:15:16	70.6	43.2	100.0	97.2	233.54	244.0	95.52
13	979	DISCHARGING	17-10-25 15:15:17	17-10-25 15:15:17	0.0	100.0	100.0	97.2	0.0	0.0	nan
13	981	DISCHARGING	17-10-25 15:17:23	17-10-25 21:07:53	350.5	100.0	54.4	97.2	187.49	184.57	98.44
13	982	CHARGING	17-10-25 21:07:54	17-10-25 21:34:59	27.08	54.4	76.4	97.2	90.45	97.11	92.64
13	983	DISCHARGING	17-10-25 21:35:00	18-10-25 01:41:40	246.68	76.4	37.2	97.05	160.93	165.79	96.98
13	984	CHARGING	18-10-25 01:41:41	18-10-25 03:10:25	88.73	37.2	100.0	96.8	257.14	272.56	94.01
13	985	DISCHARGING	18-10-25 03:10:26	18-10-25 08:32:13	321.79	100.0	54.0	96.8	188.35	182.28	96.78
13	986	CHARGING	18-10-25 08:32:15	18-10-25 09:07:42	35.44	54.0	80.0	96.8	106.46	116.89	90.2
13	987	DISCHARGING	18-10-25 09:07:43	18-10-25 14:24:09	316.45	80.0	39.6	96.8	165.42	155.88	94.23
13	988	CHARGING	18-10-25 14:24:10	18-10-25 15:47:07	82.95	39.6	100.0	96.8	247.32	256.03	96.48
13	989	DISCHARGING	18-10-25 15:47:08	18-10-25 20:38:27	291.31	100.0	56.0	96.8	180.16	175.63	97.48

Vehicle 13 – Session SoC Accuracy (Page 6/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
13	990	CHARGING	18-10-25 20:38:28	18-10-25 21:03:50	25.36	56.0	77.6	96.8	88.44	94.02	93.7
13	991	DISCHARGING	18-10-25 21:03:51	19-10-25 01:14:20	250.49	77.6	33.6	96.8	180.16	179.83	99.81
13	992	CHARGING	19-10-25 01:15:35	19-10-25 02:34:08	78.54	33.6	100.0	96.8	271.88	289.01	93.7
13	994	DISCHARGING	19-10-25 02:58:04	19-10-25 08:23:35	325.5	100.0	58.0	96.8	171.98	175.24	98.1
13	995	CHARGING	19-10-25 08:23:36	19-10-25 08:59:21	35.75	58.0	80.0	96.8	90.08	113.63	73.85
13	996	DISCHARGING	19-10-25 08:59:22	19-10-25 13:33:07	273.76	80.0	43.6	96.8	149.04	145.63	97.71
13	997	CHARGING	19-10-25 13:33:08	19-10-25 14:39:10	66.03	43.6	92.8	96.8	201.46	218.28	91.65
13	999	DISCHARGING	19-10-25 15:12:57	19-10-25 19:49:32	276.57	92.8	52.0	96.8	167.06	170.51	97.93
13	1000	CHARGING	19-10-25 19:49:33	19-10-25 19:50:17	0.73	52.0	52.0	96.8	0.0	0.02	nan
13	1002	CHARGING	19-10-25 19:51:23	19-10-25 20:25:05	33.7	52.0	80.0	96.8	114.65	124.2	91.67
13	1003	DISCHARGING	19-10-25 20:25:06	20-10-25 00:18:56	233.83	80.0	39.2	96.8	167.06	171.8	97.17
13	1004	CHARGING	20-10-25 00:18:57	20-10-25 01:33:57	75.01	39.2	100.0	96.8	248.95	240.83	96.74
13	1005	DISCHARGING	20-10-25 01:33:58	20-10-25 02:55:04	81.1	100.0	99.6	96.8	1.64	0.08	4.58
13	1006	DISCHARGING	20-10-25 03:07:16	20-10-25 08:27:29	320.22	99.6	56.4	96.8	176.89	182.99	96.55
13	1007	CHARGING	20-10-25 08:27:31	20-10-25 09:00:14	32.72	56.4	80.0	96.8	96.63	112.91	83.15
13	1008	DISCHARGING	20-10-25 09:00:16	20-10-25 13:12:38	252.38	80.0	44.0	96.8	147.41	148.47	99.28
13	1009	CHARGING	20-10-25 13:12:39	20-10-25 14:41:21	88.7	44.0	100.0	96.8	229.3	233.44	98.19
13	1014	DISCHARGING	20-10-25 14:45:21	20-10-25 21:03:33	378.2	100.0	56.8	96.8	176.89	176.58	99.82
13	1015	CHARGING	20-10-25 21:03:34	20-10-25 21:33:05	29.51	56.8	80.0	96.8	95.0	107.82	86.5
13	1016	DISCHARGING	20-10-25 21:33:06	20-10-25 21:33:06	0.01	80.0	80.0	96.8	0.0	0.0	nan
13	1018	DISCHARGING	20-10-25 21:33:18	21-10-25 01:38:30	245.19	80.0	40.8	96.8	160.51	163.16	98.35
13	1019	CHARGING	21-10-25 01:38:31	21-10-25 02:16:51	38.34	40.8	66.8	96.8	106.46	112.74	94.1
13	1021	CHARGING	21-10-25 02:16:53	21-10-25 04:03:38	106.74	66.8	100.0	96.8	135.94	139.49	97.39
13	1022	DISCHARGING	21-10-25 04:03:39	21-10-25 09:31:20	327.69	100.0	48.4	96.8	211.28	215.87	97.83
13	1023	CHARGING	21-10-25 09:31:21	21-10-25 09:49:00	17.65	48.4	57.2	96.8	36.03	38.72	92.55
13	1025	CHARGING	21-10-25 09:49:02	21-10-25 10:17:11	28.15	57.2	80.0	96.8	93.36	75.54	80.91
13	1026	DISCHARGING	21-10-25 10:17:13	21-10-25 14:30:32	253.33	80.0	41.6	96.8	157.23	152.13	96.76
13	1027	CHARGING	21-10-25 14:30:35	21-10-25 14:31:02	0.45	41.6	41.6	96.8	0.0	1.24	nan
13	1035	CHARGING	21-10-25 14:36:38	21-10-25 14:43:43	7.08	41.6	41.6	96.8	0.0	1.09	nan
13	1040	DISCHARGING	21-10-25 14:47:07	21-10-25 14:51:29	4.38	41.6	41.6	96.8	0.0	2.09	nan

Vehicle 13 – Session SoC Accuracy (Page 7/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
13	1041	CHARGING	21-10-25 14:51:33	21-10-25 14:51:53	0.33	41.6	41.6	96.8	0.0	0.38	nan
13	1045	CHARGING	21-10-25 14:53:45	21-10-25 15:37:09	43.42	41.6	74.0	96.8	132.67	140.02	94.45
13	1046	DISCHARGING	21-10-25 15:37:13	21-10-25 21:03:09	325.93	74.0	26.4	96.8	194.9	192.95	99.0
13	1047	CHARGING	21-10-25 21:03:10	21-10-25 22:04:45	61.59	26.4	80.0	96.8	219.47	235.81	92.56
13	1048	DISCHARGING	21-10-25 22:04:46	22-10-25 02:12:55	248.14	80.0	39.2	96.8	167.06	168.41	99.19
13	1049	CHARGING	22-10-25 02:14:14	22-10-25 03:28:00	73.76	39.2	100.0	96.8	248.95	253.83	98.04
13	1051	DISCHARGING	22-10-25 03:58:19	22-10-25 09:38:18	339.99	100.0	56.0	96.8	180.16	175.41	97.36
13	1052	CHARGING	22-10-25 09:38:19	22-10-25 10:15:06	36.79	56.0	80.0	96.8	98.27	118.3	79.62
13	1053	DISCHARGING	22-10-25 10:15:07	22-10-25 15:25:22	310.24	80.0	40.8	96.8	160.51	158.34	98.65
13	1054	CHARGING	22-10-25 15:25:24	22-10-25 16:57:10	91.77	40.8	100.0	96.8	242.4	242.12	99.88
13	1055	DISCHARGING	22-10-25 16:57:11	22-10-25 21:08:31	251.33	100.0	60.0	96.8	163.79	166.11	98.58
13	1056	CHARGING	22-10-25 21:08:32	22-10-25 21:34:20	25.81	60.0	80.0	96.8	81.89	93.42	85.92
13	1057	DISCHARGING	22-10-25 21:34:21	23-10-25 01:47:25	253.06	80.0	40.8	96.8	160.51	162.94	98.48
13	1058	CHARGING	23-10-25 01:49:27	23-10-25 02:58:29	69.04	40.8	100.0	96.8	242.4	253.58	95.39
13	1061	DISCHARGING	23-10-25 04:08:13	23-10-25 09:27:38	319.42	100.0	55.2	96.8	183.44	189.93	96.46
13	1062	CHARGING	23-10-25 09:27:39	23-10-25 10:07:53	40.23	55.2	80.0	96.8	101.55	115.94	85.83
13	1063	DISCHARGING	23-10-25 10:07:54	23-10-25 15:00:10	292.27	80.0	44.8	96.8	144.13	146.29	98.5
13	1064	CHARGING	23-10-25 15:00:11	23-10-25 16:11:34	71.38	44.8	85.6	96.8	167.06	208.95	74.93
13	1066	CHARGING	23-10-25 16:11:36	23-10-25 16:30:52	19.26	85.6	100.0	96.8	58.96	22.05	37.4
13	1068	CHARGING	23-10-25 16:30:54	23-10-25 17:06:54	36.0	100.0	100.0	96.8	0.0	0.04	nan
13	1069	DISCHARGING	23-10-25 17:06:55	23-10-25 20:50:02	223.12	100.0	68.4	96.8	129.39	130.51	99.14
13	1070	CHARGING	23-10-25 20:50:46	23-10-25 21:07:27	16.69	68.4	78.0	96.8	39.31	42.28	92.43
13	1071	DISCHARGING	23-10-25 21:07:28	24-10-25 00:51:10	223.69	78.0	47.2	96.8	126.12	128.6	98.03
13	1072	CHARGING	24-10-25 00:53:46	24-10-25 03:36:40	162.9	47.2	100.0	96.8	216.2	224.73	96.05
13	1073	DISCHARGING	24-10-25 03:36:43	24-10-25 09:50:40	373.95	100.0	61.6	96.8	157.23	151.21	96.17
13	1074	CHARGING	24-10-25 09:50:43	24-10-25 10:17:07	26.4	61.6	79.6	96.8	73.7	78.86	93.0
13	1075	DISCHARGING	24-10-25 10:17:08	24-10-25 13:46:11	209.04	79.6	50.8	96.8	117.93	119.19	98.93
13	1076	CHARGING	24-10-25 13:46:24	24-10-25 15:41:57	115.55	50.8	100.0	96.8	201.46	214.04	93.75
13	1077	DISCHARGING	24-10-25 15:41:58	24-10-25 21:14:10	332.19	100.0	63.2	96.8	150.68	147.15	97.65
13	1078	CHARGING	24-10-25 21:14:11	24-10-25 21:35:08	20.96	63.2	75.2	96.8	49.14	52.49	93.18

Vehicle 13 – Session SoC Accuracy (Page 8/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
13	1079	DISCHARGING	24-10-25 21:35:10	25-10-25 01:19:33	224.38	75.2	43.6	96.8	129.39	131.31	98.52
13	1080	CHARGING	25-10-25 01:25:28	25-10-25 03:08:42	103.23	43.6	100.0	96.8	230.94	242.8	94.86
13	1081	DISCHARGING	25-10-25 03:08:43	25-10-25 09:25:07	376.39	100.0	68.4	96.8	129.39	126.24	97.56
13	1082	CHARGING	25-10-25 09:25:09	25-10-25 09:47:20	22.19	68.4	80.0	96.8	47.5	66.74	59.48
13	1083	DISCHARGING	25-10-25 09:47:21	25-10-25 13:13:04	205.71	80.0	48.4	96.8	129.39	129.52	99.9
13	1084	CHARGING	25-10-25 13:13:05	25-10-25 14:32:50	79.76	48.4	100.0	96.8	211.28	211.01	99.87
13	1086	CHARGING	25-10-25 14:32:55	25-10-25 14:36:06	3.19	100.0	100.0	96.8	0.0	0.76	nan
13	1089	DISCHARGING	25-10-25 15:02:40	25-10-25 20:53:07	350.46	100.0	61.2	96.8	158.87	159.78	99.43
13	1090	CHARGING	25-10-25 20:53:08	25-10-25 21:07:04	13.93	61.2	70.8	96.8	39.31	43.04	90.5
13	1091	DISCHARGING	25-10-25 21:07:05	26-10-25 01:19:36	252.51	70.8	40.8	96.8	122.84	124.58	98.58
13	1092	CHARGING	26-10-25 01:21:54	26-10-25 03:05:14	103.33	40.8	100.0	96.8	242.4	255.79	94.48
13	1093	DISCHARGING	26-10-25 03:05:16	26-10-25 10:24:51	439.58	100.0	55.2	96.8	183.44	182.9	99.71
13	1094	CHARGING	26-10-25 10:25:01	26-10-25 10:25:55	0.9	55.2	55.6	96.8	1.64	0.32	19.52
13	1098	CHARGING	26-10-25 10:26:31	26-10-25 10:27:13	0.7	55.6	55.6	96.8	0.0	0.27	nan
13	1100	CHARGING	26-10-25 10:28:15	26-10-25 10:50:02	21.79	55.6	72.0	96.8	67.15	70.59	94.88
13	1101	DISCHARGING	26-10-25 10:50:04	26-10-25 14:14:06	204.03	72.0	36.8	96.8	144.13	141.81	98.39
13	1102	CHARGING	26-10-25 14:14:07	26-10-25 15:40:07	86.01	36.8	100.0	96.8	258.78	273.03	94.49
13	1103	DISCHARGING	26-10-25 15:40:09	26-10-25 21:04:51	324.7	100.0	58.0	96.8	171.98	171.88	99.94
13	1104	CHARGING	26-10-25 21:04:53	26-10-25 21:24:33	19.67	58.0	72.8	96.8	60.6	64.34	93.82
13	1105	DISCHARGING	26-10-25 21:24:36	27-10-25 01:31:52	247.27	72.8	41.6	96.8	127.75	131.92	96.74
13	1106	CHARGING	27-10-25 01:50:09	27-10-25 03:48:25	118.26	41.6	93.2	96.8	211.28	251.6	80.92
13	1107	DISCHARGING	27-10-25 03:48:28	27-10-25 10:06:24	377.94	93.2	48.8	96.8	181.8	181.18	99.66
13	1108	CHARGING	27-10-25 10:06:25	27-10-25 10:07:16	0.84	48.8	48.8	96.8	0.0	0.34	nan
13	1110	CHARGING	27-10-25 10:07:50	27-10-25 10:36:55	29.09	48.8	71.2	96.8	91.72	96.4	94.89
13	1111	DISCHARGING	27-10-25 10:36:57	27-10-25 14:38:01	241.08	71.2	41.6	96.8	121.2	128.27	94.16
13	1112	CHARGING	27-10-25 14:38:24	27-10-25 16:00:50	82.43	41.6	100.0	96.8	239.13	225.57	94.33
13	1113	DISCHARGING	27-10-25 16:00:51	28-10-25 01:03:42	542.85	100.0	26.4	96.8	301.37	300.36	99.67
13	1114	CHARGING	28-10-25 01:37:08	28-10-25 03:43:08	126.0	26.4	100.0	96.8	301.37	318.13	94.44
13	1117	DISCHARGING	28-10-25 03:47:48	28-10-25 10:14:17	386.47	100.0	58.0	96.8	171.98	170.95	99.41
13	1118	CHARGING	28-10-25 10:14:18	28-10-25 10:41:13	26.92	58.0	76.8	96.8	76.98	80.82	95.02

Vehicle 13 – Session SoC Accuracy (Page 9/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
13	1119	DISCHARGING	28-10-25 10:41:14	28-10-25 14:52:08	250.91	76.8	43.6	96.8	135.94	138.1	98.42
13	1122	CHARGING	28-10-25 14:53:13	28-10-25 16:26:52	93.65	43.6	100.0	96.8	230.94	244.16	94.28
13	1123	DISCHARGING	28-10-25 16:26:53	28-10-25 16:57:40	30.79	100.0	95.6	96.8	18.02	18.16	99.23
13	1125	DISCHARGING	29-10-25 04:27:39	29-10-25 04:28:06	0.45	95.6	95.6	96.8	0.0	0.85	nan
13	1126	DISCHARGING	29-10-25 04:38:46	29-10-25 04:50:44	11.96	95.6	95.6	96.8	0.0	5.33	nan
13	1127	DISCHARGING	29-10-25 04:56:58	29-10-25 09:47:01	290.05	95.6	57.6	96.8	155.6	157.78	98.6
13	1128	CHARGING	29-10-25 09:47:02	29-10-25 10:13:07	26.07	57.6	76.0	96.8	75.34	79.26	94.81
13	1129	DISCHARGING	29-10-25 10:13:08	29-10-25 14:57:57	284.82	76.0	35.6	96.67	165.21	159.16	96.34
13	1130	CHARGING	29-10-25 14:57:58	29-10-25 16:41:55	103.94	35.6	100.0	96.4	262.6	279.86	93.43
13	1132	DISCHARGING	29-10-25 16:47:36	29-10-25 21:45:28	297.88	100.0	69.6	96.4	123.96	118.2	95.35
13	1133	CHARGING	29-10-25 21:45:59	29-10-25 22:01:49	15.83	69.6	80.0	96.4	42.41	45.53	92.64
13	1134	DISCHARGING	29-10-25 22:01:50	30-10-25 01:58:55	237.08	80.0	44.8	96.4	143.54	142.69	99.41
13	787	DISCHARGING	30-09-25 18:30:01	30-09-25 20:04:56	94.91	70.8	57.2	97.6	56.15	56.01	99.75
13	788	CHARGING	30-09-25 20:04:57	30-09-25 20:38:45	33.81	57.2	80.0	97.6	94.13	113.65	79.26
13	789	DISCHARGING	30-09-25 20:38:46	01-10-25 00:35:40	236.89	80.0	40.4	97.6	163.49	165.07	99.03
13	1135	CHARGING	30-10-25 01:58:57	30-10-25 02:26:22	27.42	44.8	57.6	96.4	52.2	55.72	93.24
13	1137	CHARGING	30-10-25 02:26:24	30-10-25 02:35:26	9.04	57.6	57.6	96.4	0.0	0.2	nan
13	1139	CHARGING	30-10-25 02:35:28	30-10-25 02:36:04	0.6	57.6	57.6	96.4	0.0	1.65	nan
13	1141	CHARGING	30-10-25 02:36:06	30-10-25 02:36:36	0.5	57.6	57.6	96.4	0.0	1.32	nan
13	1143	CHARGING	30-10-25 02:36:39	30-10-25 03:55:12	78.55	57.6	100.0	96.4	172.9	179.79	96.01
13	1145	DISCHARGING	30-10-25 04:22:43	30-10-25 09:08:46	286.05	100.0	60.0	96.4	163.11	164.88	98.91
13	1146	CHARGING	30-10-25 09:08:47	30-10-25 09:37:37	28.84	60.0	80.4	96.4	83.18	107.15	71.19
13	1149	DISCHARGING	30-10-25 09:37:44	30-10-25 14:56:42	318.96	80.4	42.0	96.4	156.58	160.31	97.62
13	1150	CHARGING	30-10-25 14:56:44	30-10-25 15:36:15	39.52	42.0	66.4	96.4	99.5	105.85	93.62
13	1152	CHARGING	30-10-25 15:37:44	30-10-25 16:30:21	52.62	66.0	100.0	96.4	138.64	125.61	90.6
13	1153	DISCHARGING	30-10-25 19:19:10	30-10-25 19:22:09	2.97	100.0	99.6	96.4	1.63	0.26	15.85
13	1154	DISCHARGING	31-10-25 01:24:16	31-10-25 01:26:06	1.82	99.6	99.6	96.4	0.0	0.14	nan
13	1156	DISCHARGING	31-10-25 04:04:21	31-10-25 09:25:07	320.77	99.6	50.8	96.4	198.99	205.64	96.66
13	1159	CHARGING	31-10-25 09:28:41	31-10-25 10:04:10	35.49	50.8	80.0	96.4	119.07	129.45	91.28
13	1161	CHARGING	31-10-25 10:04:11	31-10-25 10:05:18	1.12	80.0	80.0	96.4	0.0	0.53	nan

Vehicle 13 — Session SoC Accuracy (Page 10/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
13	1162	DISCHARGING	31-10-25 10:05:29	31-10-25 14:57:36	292.11	80.0	41.2	96.4	158.22	165.21	95.58
13	1163	CHARGING	31-10-25 14:57:39	31-10-25 16:12:02	74.38	41.2	100.0	96.4	239.77	252.13	94.85
13	1164	DISCHARGING	31-10-25 16:12:05	31-10-25 18:29:47	137.71	100.0	88.0	96.4	48.93	46.2	94.42

Vehicle 14 – Session SoC Accuracy (Page 1/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
14	1168	CHARGING	01-10-25 01:31:42	01-10-25 03:00:28	88.77	38.8	100.0	98.0	253.7	270.71	93.29
14	1171	DISCHARGING	01-10-25 03:37:49	01-10-25 08:18:32	280.72	99.6	66.0	98.0	139.28	141.6	98.34
14	1172	DISCHARGING	01-10-25 08:24:20	01-10-25 09:47:32	83.19	65.2	47.6	98.0	72.96	73.59	99.13
14	1173	CHARGING	01-10-25 09:47:33	01-10-25 10:24:09	36.6	47.6	74.8	98.0	112.76	119.89	93.67
14	1174	DISCHARGING	01-10-25 10:24:10	01-10-25 15:03:04	278.89	74.8	33.2	98.0	172.45	172.19	99.85
14	1176	DISCHARGING	01-10-25 15:04:26	01-10-25 15:09:52	5.43	33.2	32.8	98.0	1.66	0.01	0.69
14	1179	CHARGING	01-10-25 15:10:47	01-10-25 16:04:47	53.99	32.8	79.2	98.0	192.35	203.21	94.35
14	1181	CHARGING	01-10-25 16:05:29	01-10-25 16:06:31	1.04	79.2	79.2	98.0	0.0	0.38	nan
14	1183	CHARGING	01-10-25 16:06:54	01-10-25 16:26:01	19.12	79.2	91.6	98.0	51.4	72.08	59.77
14	1184	DISCHARGING	01-10-25 16:26:02	01-10-25 21:02:27	276.41	91.6	50.4	98.0	170.79	174.99	97.54
14	1185	CHARGING	01-10-25 21:02:28	01-10-25 21:36:10	33.69	50.4	76.0	98.0	106.12	112.29	94.19
14	1186	DISCHARGING	01-10-25 21:36:11	02-10-25 01:31:48	235.62	76.0	35.2	98.0	169.13	168.69	99.74
14	1187	CHARGING	02-10-25 01:35:40	02-10-25 03:01:54	86.23	35.2	100.0	98.0	268.62	272.0	98.74
14	1189	DISCHARGING	02-10-25 03:13:08	02-10-25 03:15:53	2.76	100.0	99.6	98.0	1.66	0.93	56.33
14	1190	DISCHARGING	02-10-25 03:30:22	02-10-25 09:49:54	379.52	99.6	56.0	98.0	180.74	176.13	97.45
14	1191	CHARGING	02-10-25 09:50:16	02-10-25 09:51:10	0.9	56.0	56.0	98.0	0.0	0.48	nan
14	1193	CHARGING	02-10-25 09:51:36	02-10-25 10:16:23	24.78	56.0	74.0	98.0	74.62	79.2	93.85
14	1194	DISCHARGING	02-10-25 10:16:24	02-10-25 13:41:44	205.34	74.0	37.2	98.0	152.55	158.45	96.13
14	1195	CHARGING	02-10-25 13:41:46	02-10-25 13:42:58	1.2	37.2	37.2	98.0	0.0	0.37	nan
14	1197	CHARGING	02-10-25 13:43:28	02-10-25 15:36:18	112.83	37.2	100.0	98.0	260.33	278.06	93.19
14	1198	DISCHARGING	02-10-25 15:36:19	02-10-25 21:05:46	329.46	100.0	54.8	98.0	187.37	182.4	97.35
14	1203	CHARGING	02-10-25 21:07:50	02-10-25 21:35:53	28.05	54.8	74.8	98.0	82.91	87.94	93.93
14	1204	DISCHARGING	02-10-25 21:35:54	03-10-25 01:12:03	216.15	74.8	37.2	98.0	155.87	156.1	99.85
14	1205	CHARGING	03-10-25 01:24:49	03-10-25 03:54:18	149.48	37.2	100.0	98.0	260.33	276.7	93.71
14	1206	DISCHARGING	03-10-25 03:54:20	03-10-25 09:38:08	343.8	100.0	56.0	98.0	182.4	181.51	99.51
14	1207	CHARGING	03-10-25 09:38:09	03-10-25 10:09:03	30.89	56.0	78.4	98.0	92.86	99.37	92.99
14	1208	DISCHARGING	03-10-25 10:09:04	03-10-25 13:40:53	211.82	78.4	39.6	97.7	160.35	163.13	98.26
14	1209	CHARGING	03-10-25 13:40:55	03-10-25 14:51:10	70.25	39.6	78.4	97.6	160.18	171.49	92.94
14	1210	DISCHARGING	03-10-25 14:51:11	03-10-25 14:54:13	3.03	78.4	78.4	97.6	0.0	0.25	nan
14	1211	CHARGING	03-10-25 14:54:26	03-10-25 15:16:10	21.73	78.4	90.8	97.6	51.19	82.72	38.42

Vehicle 14 – Session SoC Accuracy (Page 2/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
14	1212	DISCHARGING	03-10-25 15:16:12	03-10-25 20:24:26	308.24	90.8	47.6	97.6	178.35	169.91	95.27
14	1213	CHARGING	03-10-25 20:24:27	03-10-25 21:11:55	47.47	47.6	81.2	97.6	138.72	145.48	95.12
14	1214	DISCHARGING	03-10-25 21:11:56	04-10-25 01:31:58	260.03	81.2	35.6	97.6	188.26	186.76	99.2
14	1215	CHARGING	04-10-25 01:31:59	04-10-25 02:52:42	80.71	35.6	100.0	97.6	265.87	264.0	99.29
14	1216	DISCHARGING	04-10-25 02:52:43	04-10-25 08:39:33	346.83	100.0	39.6	97.6	249.36	247.2	99.13
14	1219	CHARGING	04-10-25 08:41:27	04-10-25 08:50:14	8.79	39.6	44.0	97.6	18.16	18.56	97.83
14	1220	CHARGING	04-10-25 09:13:37	04-10-25 09:30:17	16.65	44.0	57.6	97.6	56.15	60.36	92.49
14	1221	DISCHARGING	04-10-25 09:30:20	04-10-25 09:30:35	0.25	57.6	57.6	97.6	0.0	0.01	nan
14	1222	CHARGING	04-10-25 09:31:45	04-10-25 09:59:19	27.57	57.6	80.0	97.6	92.48	100.01	91.85
14	1223	DISCHARGING	04-10-25 09:59:20	04-10-25 14:42:46	283.43	80.0	32.4	97.6	196.52	197.24	99.63
14	1224	CHARGING	04-10-25 14:42:47	04-10-25 16:19:56	97.14	32.4	100.0	97.6	279.08	296.74	93.67
14	1225	DISCHARGING	04-10-25 16:19:57	04-10-25 21:27:19	307.37	100.0	57.2	97.6	176.7	177.28	99.67
14	1228	CHARGING	04-10-25 21:27:54	04-10-25 21:52:57	25.05	57.2	76.0	97.6	77.61	82.21	94.08
14	1229	DISCHARGING	04-10-25 21:52:59	05-10-25 01:58:34	245.58	76.0	38.8	97.6	153.58	157.69	97.32
14	1230	DISCHARGING	05-10-25 02:03:58	05-10-25 02:04:56	0.97	38.8	38.8	97.6	0.0	6.1	nan
14	1231	CHARGING	05-10-25 02:04:57	05-10-25 03:37:07	92.16	38.8	100.0	97.6	252.66	271.14	92.69
14	1232	DISCHARGING	05-10-25 03:37:08	05-10-25 10:13:15	396.11	100.0	50.8	97.6	203.12	201.88	99.39
14	1233	CHARGING	05-10-25 10:13:16	05-10-25 10:18:42	5.44	50.8	51.2	97.6	1.65	1.48	89.62
14	1235	CHARGING	05-10-25 10:18:44	05-10-25 10:21:43	2.97	51.2	51.6	97.6	1.65	2.0	78.99
14	1237	CHARGING	05-10-25 10:23:20	05-10-25 10:24:05	0.76	51.6	52.0	97.6	1.65	0.27	16.55
14	1241	CHARGING	05-10-25 10:24:28	05-10-25 10:31:33	7.08	52.0	52.0	97.6	0.0	0.29	nan
14	1243	CHARGING	05-10-25 10:31:35	05-10-25 11:05:15	33.67	52.0	76.4	97.6	100.74	107.03	93.75
14	1244	DISCHARGING	05-10-25 11:05:16	05-10-25 14:09:00	183.73	76.4	46.0	97.6	125.51	127.62	98.32
14	1245	DISCHARGING	05-10-25 14:15:04	05-10-25 16:08:14	113.17	46.0	39.2	97.6	28.07	22.8	81.2
14	1246	CHARGING	05-10-25 16:09:25	05-10-25 17:25:59	76.56	39.2	94.4	97.6	227.89	249.8	90.38
14	1247	DISCHARGING	05-10-25 17:26:00	05-10-25 22:54:40	328.66	94.4	52.4	97.6	173.4	171.38	98.84
14	1248	CHARGING	05-10-25 22:54:41	05-10-25 23:40:45	46.06	52.4	86.4	97.6	140.37	152.4	91.43
14	1249	DISCHARGING	05-10-25 23:40:46	06-10-25 01:22:01	101.25	86.4	73.2	97.6	54.5	55.75	97.7
14	1250	DISCHARGING	06-10-25 01:27:02	06-10-25 07:15:05	348.05	72.8	36.8	97.6	148.62	144.83	97.44
14	1251	CHARGING	06-10-25 07:15:07	06-10-25 08:09:42	54.59	36.8	81.2	97.6	183.3	194.26	94.03

Vehicle 14 – Session SoC Accuracy (Page 3/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
14	1252	DISCHARGING	06-10-25 08:09:44	06-10-25 11:47:32	217.8	81.2	48.0	97.6	137.07	141.48	96.78
14	1253	CHARGING	06-10-25 11:47:33	06-10-25 12:19:26	31.88	48.0	71.6	97.6	97.43	103.58	93.7
14	1254	DISCHARGING	06-10-25 12:19:27	06-10-25 16:51:05	271.63	71.6	35.6	97.6	148.62	152.12	97.65
14	1255	CHARGING	06-10-25 16:51:06	06-10-25 16:53:35	2.48	35.6	36.4	97.6	3.3	4.42	66.03
14	1257	CHARGING	06-10-25 16:54:53	06-10-25 18:25:13	90.34	36.4	100.0	97.6	262.57	272.3	96.29
14	1258	DISCHARGING	06-10-25 18:25:14	06-10-25 22:14:56	229.7	100.0	62.0	97.6	156.88	157.88	99.36
14	1259	CHARGING	06-10-25 22:14:57	06-10-25 22:36:37	21.66	62.0	78.0	97.6	66.06	70.44	93.36
14	1260	DISCHARGING	06-10-25 22:36:39	07-10-25 03:37:54	301.26	78.0	34.4	97.6	180.0	180.82	99.54
14	1263	CHARGING	07-10-25 03:39:07	07-10-25 04:31:11	52.06	34.4	76.4	97.6	173.4	183.46	94.19
14	1265	CHARGING	07-10-25 04:33:49	07-10-25 04:40:23	6.55	76.4	81.2	97.6	19.82	20.64	95.85
14	1266	DISCHARGING	07-10-25 04:40:26	07-10-25 10:30:41	350.25	81.2	32.0	97.6	203.12	206.01	98.58
14	1267	CHARGING	07-10-25 10:30:43	07-10-25 11:22:09	51.44	32.0	70.0	97.6	156.88	164.47	95.16
14	1268	DISCHARGING	07-10-25 11:22:10	07-10-25 14:50:25	208.25	70.0	31.2	97.6	160.18	161.12	99.41
14	1269	CHARGING	07-10-25 14:50:28	07-10-25 16:15:47	85.3	31.2	98.8	97.6	279.08	293.81	94.72
14	1270	DISCHARGING	07-10-25 16:15:50	07-10-25 21:26:51	311.02	98.8	56.0	97.6	176.7	180.7	97.74
14	1271	CHARGING	07-10-25 21:26:52	07-10-25 21:54:24	27.53	56.0	76.0	97.6	82.57	88.72	92.55
14	1272	DISCHARGING	07-10-25 21:54:25	08-10-25 02:16:47	262.37	76.0	32.8	97.6	178.35	180.6	98.74
14	1273	CHARGING	08-10-25 02:16:48	08-10-25 03:48:15	91.46	32.8	98.8	97.6	272.48	302.67	88.92
14	1274	DISCHARGING	08-10-25 03:48:18	08-10-25 10:22:26	394.12	98.8	49.6	97.6	203.12	208.34	97.43
14	1275	CHARGING	08-10-25 10:22:27	08-10-25 10:24:05	1.63	49.6	49.6	97.6	0.0	2.13	nan
14	1277	CHARGING	08-10-25 10:24:07	08-10-25 10:55:26	31.32	49.6	72.8	97.6	95.78	101.41	94.13
14	1280	DISCHARGING	08-10-25 10:55:41	08-10-25 14:39:15	223.56	72.8	38.8	97.6	140.37	140.44	99.95
14	1281	CHARGING	08-10-25 14:39:16	08-10-25 16:01:52	82.6	38.8	100.0	97.6	252.66	267.54	94.11
14	1282	DISCHARGING	08-10-25 16:01:53	08-10-25 21:08:20	306.46	100.0	55.2	97.6	184.96	185.74	99.58
14	1283	CHARGING	08-10-25 21:08:21	08-10-25 21:44:28	36.11	55.2	80.0	97.6	102.39	117.22	85.51
14	1284	DISCHARGING	08-10-25 21:44:29	09-10-25 02:15:57	271.47	80.0	34.8	97.6	186.61	188.19	99.15
14	1285	CHARGING	09-10-25 02:15:58	09-10-25 03:52:45	96.77	34.8	100.0	97.6	269.18	280.42	95.82
14	1286	DISCHARGING	09-10-25 03:52:45	09-10-25 09:46:12	353.45	100.0	46.8	97.6	219.64	221.8	99.02
14	1287	CHARGING	09-10-25 09:46:13	09-10-25 10:19:19	33.09	46.8	72.0	97.6	104.04	108.67	95.55
14	1288	DISCHARGING	09-10-25 10:19:21	09-10-25 13:49:33	210.19	72.0	39.6	97.6	133.76	136.17	98.2

Vehicle 14 – Session SoC Accuracy (Page 4/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
14	1289	CHARGING	09-10-25 13:49:34	09-10-25 15:13:39	84.08	39.6	100.0	97.6	249.36	268.08	92.49
14	1290	DISCHARGING	09-10-25 15:13:40	09-10-25 15:15:38	1.97	100.0	99.6	97.6	1.65	1.04	63.22
14	1291	DISCHARGING	09-10-25 15:57:08	09-10-25 21:05:28	308.33	99.6	56.8	97.6	176.7	167.36	94.72
14	1292	CHARGING	09-10-25 21:05:29	09-10-25 21:31:35	26.1	56.8	76.4	97.6	80.92	84.65	95.39
14	1293	DISCHARGING	09-10-25 21:31:36	10-10-25 01:18:39	227.04	76.4	42.0	97.6	142.02	142.91	99.37
14	1294	CHARGING	10-10-25 01:18:40	10-10-25 03:38:11	139.51	42.0	100.0	97.6	239.45	254.64	93.66
14	1295	DISCHARGING	10-10-25 03:38:12	10-10-25 10:08:12	390.01	100.0	53.2	97.6	193.21	193.82	99.68
14	1296	CHARGING	10-10-25 10:08:13	10-10-25 10:42:23	34.17	53.2	72.8	97.6	80.92	85.8	93.97
14	1297	DISCHARGING	10-10-25 10:42:24	10-10-25 14:35:29	233.08	72.8	40.0	97.6	135.41	134.58	99.39
14	1298	CHARGING	10-10-25 14:35:30	10-10-25 16:01:06	85.6	40.0	100.0	97.6	247.71	262.7	93.95
14	1299	DISCHARGING	10-10-25 16:01:07	10-10-25 21:08:00	306.88	100.0	50.0	97.6	206.42	205.47	99.54
14	1300	CHARGING	10-10-25 21:21:37	10-10-25 22:00:26	38.82	50.0	80.0	97.6	123.85	142.0	85.35
14	1301	DISCHARGING	10-10-25 22:00:27	11-10-25 02:29:45	269.29	80.0	40.4	97.6	163.49	167.18	97.74
14	1302	CHARGING	11-10-25 02:30:30	11-10-25 04:04:43	94.21	40.4	100.0	97.6	246.06	252.84	97.24
14	1303	DISCHARGING	11-10-25 04:04:44	11-10-25 09:52:22	347.63	100.0	51.2	97.6	201.47	197.36	97.96
14	1306	CHARGING	11-10-25 09:53:43	11-10-25 10:35:14	41.52	51.2	80.0	97.6	118.9	132.6	88.48
14	1307	DISCHARGING	11-10-25 10:36:21	11-10-25 16:04:55	328.56	80.0	39.2	97.6	168.44	165.83	98.45
14	1308	CHARGING	11-10-25 16:04:56	11-10-25 16:05:46	0.84	39.2	39.6	97.6	1.65	0.26	15.55
14	1310	CHARGING	11-10-25 16:06:31	11-10-25 17:11:12	64.67	39.6	92.8	97.6	219.64	231.84	94.44
14	1311	DISCHARGING	11-10-25 17:11:13	11-10-25 21:49:07	277.9	92.8	60.0	97.6	135.41	136.25	99.39
14	1312	CHARGING	11-10-25 21:49:08	11-10-25 22:14:16	25.13	60.0	80.0	97.6	82.57	91.22	89.53
14	1313	DISCHARGING	11-10-25 22:14:17	12-10-25 02:18:00	243.72	80.0	39.2	97.6	168.44	172.28	97.72
14	1314	CHARGING	12-10-25 02:18:01	12-10-25 04:09:30	111.48	39.2	100.0	97.6	251.01	260.43	96.25
14	1315	DISCHARGING	12-10-25 04:09:31	12-10-25 09:33:55	324.41	100.0	56.0	97.6	181.65	180.01	99.09
14	1316	CHARGING	12-10-25 09:33:57	12-10-25 10:01:30	27.56	56.0	74.8	97.6	77.61	82.33	93.93
14	1317	DISCHARGING	12-10-25 10:01:31	12-10-25 14:46:16	284.75	74.8	26.0	97.6	201.47	196.1	97.33
14	1318	CHARGING	12-10-25 14:46:17	12-10-25 15:14:45	28.45	26.0	46.8	97.6	85.87	91.51	93.43
14	1319	DISCHARGING	12-10-25 15:14:46	12-10-25 15:17:02	2.27	46.8	46.8	97.6	0.0	0.15	nan
14	1322	CHARGING	12-10-25 15:17:23	12-10-25 16:15:52	58.49	46.8	97.2	97.6	208.08	207.7	99.82
14	1323	DISCHARGING	12-10-25 16:15:53	12-10-25 21:09:41	293.8	97.2	50.4	97.6	193.21	193.94	99.63

Vehicle 14 – Session SoC Accuracy (Page 5/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
14	1326	CHARGING	12-10-25 21:14:16	12-10-25 21:22:28	8.2	50.4	52.0	97.6	6.61	5.77	87.4
14	1328	CHARGING	12-10-25 21:22:30	12-10-25 21:25:06	2.6	52.0	52.0	97.6	0.0	3.27	nan
14	1329	DISCHARGING	12-10-25 21:25:07	12-10-25 21:30:33	5.43	52.0	52.0	97.6	0.0	0.3	nan
14	1330	CHARGING	12-10-25 21:30:34	12-10-25 21:54:52	24.31	52.0	64.8	97.6	52.84	56.45	93.17
14	1332	CHARGING	12-10-25 21:54:54	12-10-25 22:07:25	12.51	64.8	69.2	97.6	18.16	20.21	88.75
14	1334	CHARGING	12-10-25 22:07:27	12-10-25 22:22:56	15.48	69.2	80.0	97.6	44.59	49.27	89.5
14	1335	DISCHARGING	12-10-25 22:22:57	13-10-25 03:02:59	280.03	80.0	26.4	97.6	221.29	221.2	99.96
14	1336	CHARGING	13-10-25 03:03:00	13-10-25 05:09:54	126.91	26.4	80.0	97.6	221.29	235.54	93.56
14	1337	CHARGING	13-10-25 05:43:05	13-10-25 06:37:36	54.5	80.0	100.0	97.6	82.57	100.1	78.77
14	1339	CHARGING	13-10-25 07:03:12	13-10-25 07:04:06	0.89	100.0	100.0	97.6	0.0	3.01	nan
14	1340	DISCHARGING	13-10-25 07:04:07	13-10-25 07:12:37	8.49	100.0	99.6	97.6	1.65	0.23	13.81
14	1344	DISCHARGING	13-10-25 16:25:55	13-10-25 21:35:06	309.18	99.6	56.8	97.6	176.7	177.79	99.38
14	1345	CHARGING	13-10-25 21:35:07	13-10-25 21:41:58	6.85	56.8	60.4	97.6	14.86	15.18	97.87
14	1347	CHARGING	13-10-25 21:42:00	13-10-25 21:51:34	9.57	60.4	60.8	97.6	1.65	4.19	-53.73
14	1348	DISCHARGING	13-10-25 21:51:35	13-10-25 21:53:46	2.19	60.8	60.8	97.6	0.0	0.06	nan
14	1349	CHARGING	13-10-25 21:53:50	13-10-25 22:19:40	25.84	60.8	80.0	97.6	79.27	86.79	90.51
14	1350	DISCHARGING	13-10-25 22:19:41	14-10-25 02:37:46	258.09	80.0	39.2	97.6	168.44	166.43	98.8
14	1352	DISCHARGING	14-10-25 02:58:23	14-10-25 03:03:24	5.02	39.2	39.2	97.6	0.0	0.19	nan
14	1353	CHARGING	14-10-25 03:04:28	14-10-25 04:49:12	104.73	39.2	100.0	97.6	251.01	262.59	95.39
14	1356	DISCHARGING	14-10-25 04:49:36	14-10-25 05:47:50	58.23	100.0	99.6	97.6	1.65	0.26	15.63
14	1357	DISCHARGING	14-10-25 05:58:54	14-10-25 06:33:45	34.86	99.6	98.4	97.6	4.95	3.18	64.08
14	1358	DISCHARGING	14-10-25 07:00:29	14-10-25 07:05:47	5.31	98.4	98.4	97.6	0.0	5.32	nan
14	1359	DISCHARGING	14-10-25 07:37:18	14-10-25 07:47:08	9.84	98.4	97.6	97.6	3.3	2.26	68.29
14	1360	DISCHARGING	14-10-25 07:56:53	14-10-25 08:46:35	49.7	97.6	96.0	97.6	6.61	7.29	89.66
14	1362	DISCHARGING	14-10-25 10:43:58	14-10-25 10:48:14	4.27	96.0	96.0	97.6	0.0	0.2	nan
14	1364	CHARGING	14-10-25 12:06:51	14-10-25 12:16:22	9.52	96.0	100.0	97.6	16.51	18.13	90.21
14	1365	DISCHARGING	14-10-25 12:27:17	14-10-25 20:38:09	490.86	100.0	62.0	97.6	156.88	157.29	99.74
14	1366	CHARGING	14-10-25 20:38:10	14-10-25 20:57:59	19.81	62.0	76.4	97.6	59.45	63.62	92.98
14	1367	DISCHARGING	14-10-25 20:58:00	15-10-25 01:29:02	271.03	76.4	37.6	97.6	160.18	161.83	98.97
14	1368	CHARGING	15-10-25 01:29:38	15-10-25 02:49:35	79.95	37.6	100.0	97.6	257.62	272.87	94.08

Vehicle 14 – Session SoC Accuracy (Page 6/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
14	1370	DISCHARGING	15-10-25 06:18:20	15-10-25 09:12:45	174.41	100.0	96.8	97.6	13.21	8.79	66.56
14	1371	DISCHARGING	15-10-25 12:00:18	15-10-25 12:10:03	9.75	96.8	96.8	97.6	0.0	0.24	nan
14	1372	DISCHARGING	15-10-25 12:44:09	15-10-25 12:45:32	1.38	96.8	96.8	97.6	0.0	0.29	nan
14	1373	DISCHARGING	15-10-25 14:00:56	15-10-25 14:03:42	2.76	96.8	96.8	97.6	0.0	5.76	nan
14	1374	DISCHARGING	15-10-25 15:33:55	15-10-25 20:59:29	325.58	96.8	51.6	97.6	186.61	188.04	99.23
14	1375	CHARGING	15-10-25 20:59:30	15-10-25 21:45:42	46.2	51.6	84.8	97.6	137.07	172.67	74.03
14	1376	DISCHARGING	15-10-25 21:45:43	16-10-25 02:12:51	267.12	84.8	39.6	97.41	186.25	186.01	99.87
14	1377	DISCHARGING	16-10-25 03:02:17	16-10-25 03:02:48	0.51	39.6	39.6	97.2	0.0	2.52	nan
14	1378	CHARGING	16-10-25 03:05:29	16-10-25 04:27:27	81.95	39.6	100.0	97.2	248.34	241.42	97.21
14	1381	DISCHARGING	16-10-25 05:58:00	16-10-25 06:54:42	56.7	100.0	98.8	97.2	4.93	7.35	51.02
14	1385	DISCHARGING	16-10-25 12:31:15	16-10-25 20:56:06	504.86	98.8	51.6	97.2	194.07	193.37	99.64
14	1386	CHARGING	16-10-25 20:56:08	16-10-25 21:32:00	35.87	51.6	80.0	97.2	116.77	127.27	91.01
14	1387	DISCHARGING	16-10-25 21:32:01	17-10-25 01:49:27	257.43	80.0	33.6	97.2	190.78	192.47	99.11
14	1388	CHARGING	17-10-25 01:49:28	17-10-25 03:52:54	123.43	33.6	100.0	97.2	273.01	289.22	94.06
14	1389	DISCHARGING	17-10-25 03:52:55	17-10-25 09:31:37	338.7	100.0	51.2	97.2	200.64	205.82	97.42
14	1390	CHARGING	17-10-25 09:32:53	17-10-25 10:13:18	40.42	51.2	80.0	97.2	118.41	143.29	78.99
14	1391	DISCHARGING	17-10-25 10:13:19	17-10-25 15:03:24	290.08	80.0	36.8	97.2	177.62	179.67	98.84
14	1392	CHARGING	17-10-25 15:03:25	17-10-25 16:24:23	80.97	36.8	100.0	97.2	259.85	261.47	99.38
14	1393	DISCHARGING	17-10-25 16:24:24	18-10-25 00:53:55	509.52	100.0	28.4	97.2	294.39	290.46	98.67
14	1394	CHARGING	18-10-25 00:56:26	18-10-25 01:30:01	33.59	28.4	52.4	97.2	98.68	103.48	95.13
14	1395	CHARGING	18-10-25 02:50:24	18-10-25 03:48:26	58.04	52.4	98.8	97.2	190.78	197.75	96.35
14	1396	DISCHARGING	18-10-25 03:48:28	18-10-25 10:35:19	406.86	98.8	45.2	97.2	220.38	219.38	99.54
14	1397	CHARGING	18-10-25 10:35:22	18-10-25 11:02:41	27.31	45.2	65.6	97.2	83.88	87.3	95.91
14	1398	CHARGING	18-10-25 11:09:19	18-10-25 11:19:46	10.46	65.6	72.8	97.2	29.6	32.41	90.52
14	1399	DISCHARGING	18-10-25 11:19:47	18-10-25 14:54:39	214.86	72.8	34.8	97.2	156.24	158.93	98.28
14	1400	CHARGING	18-10-25 14:54:42	18-10-25 16:27:55	93.22	34.8	98.8	97.2	263.14	288.89	90.22
14	1401	DISCHARGING	18-10-25 16:27:58	18-10-25 21:17:28	289.51	98.8	62.8	97.2	148.02	145.7	98.44
14	1402	CHARGING	18-10-25 21:17:29	18-10-25 21:37:19	19.84	62.8	77.2	97.2	59.21	65.09	90.06
14	1403	DISCHARGING	18-10-25 21:37:20	19-10-25 01:04:10	206.83	77.2	35.6	97.2	171.04	172.55	99.12
14	1405	CHARGING	19-10-25 01:48:45	19-10-25 03:28:36	99.85	35.6	100.0	97.2	264.78	279.71	94.36

Vehicle 14 – Session SoC Accuracy (Page 7/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
14	1406	DISCHARGING	19-10-25 03:28:39	19-10-25 10:08:15	399.6	100.0	55.2	97.2	184.2	185.6	99.24
14	1409	CHARGING	19-10-25 10:08:37	19-10-25 10:09:27	0.83	55.2	55.6	97.2	1.64	0.32	19.39
14	1411	CHARGING	19-10-25 10:09:56	19-10-25 10:39:44	29.79	55.6	76.0	97.2	83.88	89.6	93.18
14	1412	DISCHARGING	19-10-25 10:39:45	19-10-25 14:23:23	223.64	76.0	36.4	97.2	162.82	162.24	99.65
14	1413	CHARGING	19-10-25 14:23:26	19-10-25 16:05:38	102.2	36.4	100.0	97.2	261.5	279.46	93.13
14	1414	DISCHARGING	19-10-25 16:05:41	19-10-25 20:59:18	293.62	100.0	58.8	97.2	169.4	166.88	98.51
14	1415	CHARGING	19-10-25 20:59:46	19-10-25 21:23:58	24.2	58.8	76.0	97.2	70.72	74.48	94.69
14	1416	DISCHARGING	19-10-25 21:23:59	20-10-25 00:49:27	205.46	76.0	42.8	97.2	136.5	138.08	98.84
14	1417	CHARGING	20-10-25 00:49:28	20-10-25 03:38:24	168.94	42.8	100.0	97.2	235.18	251.84	92.92
14	1418	DISCHARGING	20-10-25 03:38:26	20-10-25 09:39:45	361.33	100.0	56.8	97.2	177.62	169.36	95.35
14	1419	CHARGING	20-10-25 09:39:48	20-10-25 10:12:14	32.44	56.8	77.6	97.2	85.52	96.54	87.12
14	1420	DISCHARGING	20-10-25 10:12:15	20-10-25 13:50:05	217.83	77.6	44.8	97.2	134.86	134.76	99.93
14	1421	CHARGING	20-10-25 13:50:06	20-10-25 15:26:43	96.63	44.8	100.0	97.2	226.96	241.76	93.48
14	1427	DISCHARGING	20-10-25 15:35:05	20-10-25 21:16:21	341.28	100.0	56.8	97.2	177.62	176.93	99.61
14	1428	CHARGING	20-10-25 21:16:23	20-10-25 21:42:41	26.3	56.8	76.4	97.2	80.59	85.79	93.54
14	1429	DISCHARGING	20-10-25 21:42:42	21-10-25 01:33:24	230.71	76.4	38.0	97.2	157.88	157.18	99.55
14	1430	CHARGING	21-10-25 02:24:58	21-10-25 03:38:16	73.3	38.0	60.8	97.2	93.74	99.57	93.79
14	1432	CHARGING	21-10-25 03:38:18	21-10-25 04:05:37	27.31	60.8	79.2	97.2	75.65	80.72	93.3
14	1433	DISCHARGING	21-10-25 04:05:39	21-10-25 10:09:17	363.64	79.2	30.4	97.2	200.64	200.38	99.87
14	1434	CHARGING	21-10-25 10:09:44	21-10-25 10:56:44	47.0	30.4	65.6	97.2	144.73	152.96	94.31
14	1435	DISCHARGING	21-10-25 10:56:45	21-10-25 14:52:56	236.2	65.6	27.6	97.2	156.24	153.32	98.13
14	1436	CHARGING	21-10-25 14:52:57	21-10-25 16:06:00	73.04	27.6	87.2	97.2	245.05	262.46	92.9
14	1437	DISCHARGING	21-10-25 16:06:03	21-10-25 21:14:21	308.29	87.2	44.4	97.2	175.98	179.5	98.0
14	1438	CHARGING	21-10-25 21:14:22	21-10-25 21:15:50	1.46	44.4	44.4	97.2	0.0	0.28	nan
14	1440	CHARGING	21-10-25 21:15:52	21-10-25 21:57:38	41.77	44.4	76.0	97.2	129.93	137.04	94.52
14	1441	DISCHARGING	21-10-25 21:57:39	22-10-25 01:56:27	238.8	76.0	32.8	97.2	177.62	178.36	99.58
14	1442	CHARGING	22-10-25 01:56:28	22-10-25 03:47:05	110.62	32.8	100.0	97.2	276.3	292.64	94.08
14	1443	DISCHARGING	22-10-25 03:47:06	22-10-25 10:01:35	374.48	100.0	52.0	97.2	197.36	196.1	99.36
14	1444	CHARGING	22-10-25 10:01:37	22-10-25 10:03:27	1.84	52.0	52.0	97.2	0.0	0.31	nan
14	1446	CHARGING	22-10-25 10:03:29	22-10-25 10:38:28	34.97	52.0	77.6	97.2	105.26	109.69	95.79

Vehicle 14 – Session SoC Accuracy (Page 8/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
14	1447	DISCHARGING	22-10-25 10:38:29	22-10-25 14:22:18	223.82	77.6	40.0	97.2	154.6	157.69	98.0
14	1448	CHARGING	22-10-25 14:22:19	22-10-25 16:06:37	104.29	40.0	100.0	97.2	246.69	265.33	92.45
14	1449	DISCHARGING	22-10-25 16:06:38	22-10-25 21:29:56	323.3	100.0	55.6	97.2	182.55	183.33	99.57
14	1450	CHARGING	22-10-25 21:29:57	22-10-25 21:57:14	27.28	55.6	76.0	97.2	83.88	87.9	95.2
14	1451	DISCHARGING	22-10-25 21:57:15	23-10-25 01:52:18	235.06	76.0	40.4	97.2	146.37	144.58	98.78
14	1454	CHARGING	23-10-25 01:54:42	23-10-25 03:15:00	80.29	40.4	100.0	97.2	245.05	260.84	93.56
14	1455	DISCHARGING	23-10-25 03:15:03	23-10-25 09:53:18	398.24	100.0	60.4	97.2	162.82	156.28	95.99
14	1456	CHARGING	23-10-25 09:54:11	23-10-25 10:19:26	25.26	60.4	79.2	97.2	77.3	80.86	95.39
14	1457	DISCHARGING	23-10-25 10:21:10	23-10-25 14:09:40	228.49	79.2	44.8	97.2	141.44	143.1	98.82
14	1458	CHARGING	23-10-25 14:10:38	23-10-25 15:50:02	99.4	44.8	100.0	97.2	226.96	242.77	93.03
14	1459	DISCHARGING	23-10-25 15:50:03	23-10-25 20:46:56	296.87	100.0	53.2	97.2	192.42	191.92	99.74
14	1460	CHARGING	23-10-25 20:46:57	23-10-25 21:18:45	31.8	53.2	80.0	97.2	110.19	121.53	89.7
14	1461	DISCHARGING	23-10-25 21:18:46	24-10-25 01:44:30	265.73	80.0	37.2	97.2	175.98	174.65	99.25
14	1462	CHARGING	24-10-25 01:44:31	24-10-25 02:58:42	74.19	37.2	87.6	97.2	207.22	229.56	89.22
14	1466	CHARGING	24-10-25 03:01:27	24-10-25 03:31:11	29.74	87.6	100.0	97.2	50.98	43.06	84.46
14	1470	DISCHARGING	24-10-25 03:47:32	24-10-25 09:27:25	339.87	100.0	51.2	97.2	200.64	204.99	97.84
14	1471	CHARGING	24-10-25 09:27:26	24-10-25 09:30:36	3.17	51.2	52.0	97.2	3.29	3.48	94.22
14	1473	CHARGING	24-10-25 09:32:32	24-10-25 09:37:37	5.08	52.0	53.2	97.2	4.93	3.88	78.65
14	1474	DISCHARGING	24-10-25 09:37:38	24-10-25 09:46:58	9.33	53.2	53.2	97.2	0.0	0.04	nan
14	1475	CHARGING	24-10-25 09:46:59	24-10-25 10:20:51	33.88	53.2	80.0	97.2	110.19	121.56	89.68
14	1476	DISCHARGING	24-10-25 10:20:52	24-10-25 15:00:17	279.41	80.0	40.4	97.2	162.82	159.96	98.25
14	1477	CHARGING	24-10-25 15:00:21	24-10-25 16:38:11	97.84	40.4	100.0	97.2	245.05	257.85	94.78
14	1478	DISCHARGING	24-10-25 16:38:15	24-10-25 21:08:31	270.27	100.0	58.4	97.2	171.04	169.39	99.03
14	1479	CHARGING	24-10-25 21:08:32	24-10-25 21:43:07	34.58	58.4	78.0	97.2	80.59	84.7	94.89
14	1480	DISCHARGING	24-10-25 21:43:07	25-10-25 02:16:13	273.09	78.0	32.4	97.2	187.49	188.52	99.45
14	1481	CHARGING	25-10-25 02:16:14	25-10-25 03:58:33	102.31	32.4	100.0	97.2	277.94	295.69	93.61
14	1482	DISCHARGING	25-10-25 03:58:34	25-10-25 09:28:27	329.88	100.0	52.0	97.2	197.36	199.3	99.01
14	1483	CHARGING	25-10-25 09:28:28	25-10-25 09:36:15	7.77	52.0	53.6	97.2	6.58	6.65	98.93
14	1484	DISCHARGING	25-10-25 09:36:16	25-10-25 09:39:16	3.01	53.6	53.6	97.2	0.0	0.01	nan
14	1485	CHARGING	25-10-25 09:39:18	25-10-25 10:12:07	32.83	53.6	80.0	97.2	108.54	119.2	90.19

Vehicle 14 – Session SoC Accuracy (Page 9/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
14	1487	CHARGING	25-10-25 10:12:10	25-10-25 10:14:02	1.87	80.0	80.0	97.2	0.0	1.29	nan
14	1488	DISCHARGING	25-10-25 10:14:03	25-10-25 12:07:44	113.68	80.0	61.2	97.2	77.3	79.49	97.16
14	1489	DISCHARGING	25-10-25 12:13:05	25-10-25 14:32:23	139.3	60.4	45.2	97.2	62.5	62.45	99.93
14	1492	CHARGING	25-10-25 14:32:41	25-10-25 15:58:25	85.72	45.2	94.0	97.2	200.64	239.2	80.79
14	1493	DISCHARGING	25-10-25 15:58:27	25-10-25 21:07:32	309.08	94.0	53.6	97.2	166.11	167.79	98.99
14	1494	CHARGING	25-10-25 21:07:33	25-10-25 21:49:15	41.71	53.6	80.4	97.2	110.19	128.9	83.02
14	1495	DISCHARGING	25-10-25 21:49:16	26-10-25 02:21:15	271.97	80.4	42.8	97.2	154.6	152.33	98.54
14	1496	CHARGING	26-10-25 02:21:16	26-10-25 02:53:55	32.66	42.8	67.2	97.2	100.32	105.02	95.31
14	1498	CHARGING	26-10-25 02:53:58	26-10-25 03:43:09	49.19	67.2	100.0	97.2	134.86	112.87	83.7
14	1499	DISCHARGING	26-10-25 03:43:10	26-10-25 03:46:05	2.91	100.0	99.6	97.2	1.64	0.11	6.45
14	1500	DISCHARGING	26-10-25 04:11:33	26-10-25 09:37:47	326.23	99.6	44.0	97.2	228.6	226.73	99.18
14	1501	CHARGING	26-10-25 09:37:49	26-10-25 10:23:46	45.95	44.0	80.0	97.2	148.02	159.8	92.04
14	1502	DISCHARGING	26-10-25 10:23:48	26-10-25 12:41:04	137.26	80.0	51.6	97.2	116.77	118.04	98.91
14	1503	DISCHARGING	26-10-25 12:46:08	26-10-25 14:35:56	109.8	50.8	34.8	97.2	65.78	65.18	99.07
14	1504	CHARGING	26-10-25 14:35:57	26-10-25 16:15:46	99.81	34.8	100.0	97.2	268.07	284.48	93.88
14	1505	DISCHARGING	26-10-25 16:15:47	26-10-25 21:06:37	290.84	100.0	51.2	97.2	200.64	195.53	97.45
14	1506	CHARGING	26-10-25 21:06:38	26-10-25 21:55:09	48.5	51.2	81.2	97.2	123.35	146.14	81.52
14	1507	DISCHARGING	26-10-25 21:55:09	27-10-25 02:06:19	251.16	81.2	37.2	97.2	180.91	182.82	98.94
14	1508	CHARGING	27-10-25 02:06:45	27-10-25 03:47:38	100.89	37.2	100.0	97.2	258.21	260.13	99.26
14	1509	DISCHARGING	27-10-25 03:47:39	27-10-25 09:35:54	348.25	100.0	48.4	97.2	212.16	211.4	99.64
14	1510	CHARGING	27-10-25 09:35:55	27-10-25 10:16:52	40.94	48.4	80.0	97.2	129.93	146.62	87.15
14	1511	DISCHARGING	27-10-25 10:16:52	27-10-25 14:31:30	254.62	80.0	34.8	97.06	185.57	186.28	99.62
14	1512	CHARGING	27-10-25 14:31:33	27-10-25 15:55:21	83.8	34.8	100.0	96.8	266.97	279.34	95.37
14	1515	DISCHARGING	27-10-25 15:59:00	27-10-25 20:40:48	281.79	100.0	52.0	96.8	196.54	195.04	99.24
14	1516	CHARGING	27-10-25 20:40:49	27-10-25 21:17:06	36.29	52.0	79.2	96.8	111.37	118.69	93.43
14	1517	DISCHARGING	27-10-25 21:17:07	28-10-25 01:07:52	230.74	79.2	30.4	96.8	199.82	203.52	98.15
14	1518	CHARGING	28-10-25 01:07:53	28-10-25 06:32:04	324.18	30.4	100.0	96.8	284.99	306.49	92.45
14	1523	DISCHARGING	29-10-25 02:03:34	29-10-25 02:07:50	4.27	100.0	100.0	96.8	0.0	0.53	nan
14	1525	DISCHARGING	29-10-25 14:37:13	29-10-25 14:42:53	5.68	100.0	99.6	96.8	1.64	4.93	-100.98
14	1526	DISCHARGING	29-10-25 15:29:19	29-10-25 20:42:18	312.97	99.6	53.2	96.8	189.99	188.86	99.4

Vehicle 14 — Session SoC Accuracy (Page 10/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
14	1527	CHARGING	29-10-25 20:42:19	29-10-25 21:16:48	34.5	53.2	80.0	96.8	109.74	120.72	89.99
14	1528	DISCHARGING	29-10-25 21:16:49	30-10-25 01:43:54	267.07	80.0	35.2	96.8	183.44	185.73	98.75
14	1165	DISCHARGING	30-09-25 18:30:01	30-09-25 21:05:35	155.56	86.0	55.6	98.0	126.02	129.7	97.08
14	1166	CHARGING	30-09-25 21:05:36	30-09-25 21:34:47	29.18	55.6	76.4	98.0	86.22	91.39	94.0
14	1167	DISCHARGING	30-09-25 21:34:48	01-10-25 01:31:41	236.87	76.4	38.8	98.0	155.87	155.83	99.98
14	1529	CHARGING	30-10-25 01:43:58	30-10-25 02:26:56	42.96	35.2	60.8	96.8	104.82	110.59	94.5
14	1531	CHARGING	30-10-25 02:26:58	30-10-25 02:30:46	3.79	60.8	62.0	96.8	4.91	5.74	83.25
14	1533	CHARGING	30-10-25 02:31:15	30-10-25 02:33:13	1.97	62.0	62.0	96.8	0.0	1.04	nan
14	1535	CHARGING	30-10-25 02:33:16	30-10-25 03:32:16	59.0	62.0	100.0	96.8	155.6	165.98	93.33
14	1536	DISCHARGING	30-10-25 03:32:17	30-10-25 08:26:31	294.24	100.0	58.8	96.8	168.7	170.11	99.17
14	1537	CHARGING	30-10-25 08:26:32	30-10-25 08:29:25	2.88	58.8	59.2	96.8	1.64	1.46	89.23
14	1539	CHARGING	30-10-25 08:31:05	30-10-25 09:06:43	35.62	59.2	81.6	96.8	91.72	113.89	75.83
14	1540	DISCHARGING	30-10-25 09:06:46	30-10-25 14:38:10	331.41	81.6	38.4	96.8	176.89	176.4	99.73
14	1541	CHARGING	30-10-25 14:39:22	30-10-25 16:28:48	109.43	38.4	100.0	96.8	252.23	255.14	98.85
14	1543	DISCHARGING	30-10-25 19:15:09	30-10-25 19:16:18	1.15	100.0	100.0	96.8	0.0	0.08	nan
14	1545	DISCHARGING	31-10-25 02:45:46	31-10-25 08:34:49	349.04	100.0	48.0	96.8	212.92	216.36	98.38
14	1546	CHARGING	31-10-25 08:41:33	31-10-25 09:20:52	39.32	48.0	80.0	96.8	131.03	147.18	87.67
14	1549	DISCHARGING	31-10-25 09:21:24	31-10-25 14:06:04	284.66	80.0	37.2	96.8	175.25	170.19	97.11
14	1550	CHARGING	31-10-25 14:07:06	31-10-25 14:10:25	3.32	37.2	37.2	96.8	0.0	0.49	nan
14	1552	CHARGING	31-10-25 14:10:27	31-10-25 15:42:55	92.46	37.2	100.0	96.8	257.14	267.11	96.12
14	1554	CHARGING	31-10-25 15:42:56	31-10-25 16:01:22	18.43	100.0	100.0	96.8	0.0	0.09	nan
14	1555	DISCHARGING	31-10-25 16:01:23	31-10-25 18:29:58	148.58	100.0	80.4	96.8	80.26	73.28	91.31

Vehicle 15 – Session SoC Accuracy (Page 1/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
15	1557	CHARGING	01-10-25 02:42:51	01-10-25 04:10:17	87.44	37.6	100.0	98.4	259.73	271.57	95.44
15	1560	DISCHARGING	01-10-25 04:21:16	01-10-25 09:14:13	292.97	100.0	61.2	98.4	161.5	159.38	98.69
15	1561	CHARGING	01-10-25 09:14:14	01-10-25 09:45:25	31.18	61.2	80.4	98.4	79.92	94.79	81.39
15	1562	DISCHARGING	01-10-25 09:48:23	01-10-25 15:27:08	338.74	80.4	38.4	98.4	174.82	170.14	97.32
15	1563	CHARGING	01-10-25 15:27:09	01-10-25 16:34:51	67.71	38.4	97.2	98.4	244.74	241.72	98.76
15	1564	DISCHARGING	01-10-25 16:34:52	01-10-25 21:54:40	319.79	97.2	59.6	98.4	156.5	159.42	98.13
15	1567	CHARGING	01-10-25 21:55:17	01-10-25 22:26:14	30.95	59.6	80.0	98.4	84.91	112.28	67.77
15	1568	DISCHARGING	01-10-25 22:26:15	02-10-25 03:17:12	290.96	80.0	42.0	98.4	158.17	163.24	96.79
15	1569	CHARGING	02-10-25 03:17:16	02-10-25 03:37:32	20.26	42.0	58.0	98.4	66.6	70.51	94.13
15	1570	DISCHARGING	02-10-25 03:37:35	02-10-25 05:35:58	118.38	58.0	56.4	98.4	6.66	0.57	8.61
15	1573	CHARGING	02-10-25 05:39:27	02-10-25 07:22:07	102.67	56.4	100.0	98.4	181.48	174.12	95.95
15	1575	DISCHARGING	02-10-25 10:49:13	02-10-25 10:52:45	3.54	100.0	99.6	98.4	1.66	0.03	1.78
15	1576	DISCHARGING	02-10-25 11:48:22	02-10-25 21:12:41	564.31	99.6	59.2	98.4	168.16	166.57	99.05
15	1577	CHARGING	02-10-25 21:13:53	02-10-25 21:41:31	27.64	59.2	80.0	98.4	86.58	93.89	91.55
15	1578	DISCHARGING	02-10-25 21:41:34	03-10-25 02:00:28	258.91	80.0	47.6	98.4	134.86	134.83	99.98
15	1579	CHARGING	03-10-25 02:00:30	03-10-25 03:51:25	110.93	47.6	100.0	98.4	218.11	227.06	95.9
15	1580	DISCHARGING	03-10-25 03:51:26	03-10-25 09:35:04	343.62	100.0	56.0	98.4	183.14	187.35	97.7
15	1581	CHARGING	03-10-25 09:35:05	03-10-25 09:35:59	0.89	56.0	56.0	98.4	0.0	2.44	nan
15	1583	CHARGING	03-10-25 09:36:01	03-10-25 10:07:59	31.97	56.0	80.0	98.4	99.9	112.38	87.5
15	1584	DISCHARGING	03-10-25 10:08:00	03-10-25 15:02:53	294.89	80.0	41.2	98.4	161.5	156.09	96.65
15	1585	DISCHARGING	03-10-25 15:09:45	03-10-25 15:51:18	41.55	40.8	36.8	98.4	16.65	14.15	84.99
15	1586	CHARGING	03-10-25 15:51:19	03-10-25 17:05:16	73.94	36.8	100.0	98.4	263.06	268.3	98.01
15	1587	DISCHARGING	03-10-25 17:05:17	03-10-25 20:56:38	231.35	100.0	61.2	98.4	161.5	160.73	99.53
15	1588	CHARGING	03-10-25 20:56:39	03-10-25 21:08:23	11.73	61.2	70.4	98.4	38.29	40.41	94.47
15	1589	DISCHARGING	03-10-25 21:08:24	03-10-25 21:17:08	8.73	70.4	70.0	98.4	1.66	0.05	2.88
15	1590	CHARGING	03-10-25 21:17:09	03-10-25 21:33:50	16.68	70.0	80.0	98.4	41.62	49.88	80.17
15	1591	DISCHARGING	03-10-25 21:33:57	04-10-25 02:07:03	273.1	80.0	41.6	98.4	159.83	153.8	96.23
15	1592	CHARGING	04-10-25 02:07:04	04-10-25 03:42:25	95.35	41.6	100.0	98.4	243.08	248.36	97.83
15	1593	DISCHARGING	04-10-25 03:42:26	04-10-25 10:03:01	380.58	100.0	49.2	98.4	211.45	218.72	96.56
15	1594	CHARGING	04-10-25 10:06:34	04-10-25 10:46:47	40.22	49.2	80.0	98.4	128.2	139.56	91.14

Vehicle 15 – Session SoC Accuracy (Page 2/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
15	1597	DISCHARGING	04-10-25 10:47:03	04-10-25 16:08:50	321.79	80.0	37.6	98.4	176.48	180.91	97.49
15	1598	CHARGING	04-10-25 16:08:51	04-10-25 17:15:34	66.72	37.6	98.4	98.4	253.07	254.73	99.34
15	1599	DISCHARGING	04-10-25 17:15:36	04-10-25 21:16:39	241.04	98.4	64.8	98.4	139.85	137.19	98.1
15	1600	CHARGING	04-10-25 21:16:40	04-10-25 21:38:40	22.0	64.8	80.0	98.4	63.27	69.36	90.37
15	1601	DISCHARGING	04-10-25 21:38:41	05-10-25 01:51:33	252.86	80.0	42.4	98.4	156.5	160.53	97.43
15	1602	CHARGING	05-10-25 01:51:34	05-10-25 04:03:34	132.0	42.4	100.0	98.4	239.75	260.79	91.22
15	1603	DISCHARGING	05-10-25 04:03:35	05-10-25 09:28:22	324.79	100.0	52.4	98.4	198.13	201.52	98.29
15	1606	CHARGING	05-10-25 09:29:24	05-10-25 10:06:16	36.88	52.4	80.0	98.4	114.88	125.2	91.02
15	1607	DISCHARGING	05-10-25 10:06:18	05-10-25 15:09:31	303.22	80.0	38.8	98.4	171.49	167.59	97.73
15	1608	CHARGING	05-10-25 15:09:33	05-10-25 16:23:18	73.74	38.8	98.8	98.4	249.74	255.26	97.79
15	1609	DISCHARGING	05-10-25 16:23:20	05-10-25 21:23:57	300.61	98.8	59.6	98.22	162.86	160.83	98.75
15	1610	CHARGING	05-10-25 21:24:45	05-10-25 21:52:02	27.29	59.6	77.2	98.0	72.96	76.75	94.8
15	1611	DISCHARGING	05-10-25 21:52:03	06-10-25 02:22:10	270.11	77.2	42.0	98.0	145.92	143.53	98.37
15	1612	CHARGING	06-10-25 02:22:11	06-10-25 03:39:44	77.56	42.0	100.0	98.0	240.43	263.12	90.57
15	1613	CHARGING	06-10-25 03:55:34	06-10-25 03:55:58	0.4	100.0	100.0	98.0	0.0	10.28	nan
15	1614	DISCHARGING	06-10-25 03:55:59	06-10-25 09:47:20	351.35	100.0	51.2	98.0	202.3	201.51	99.61
15	1615	CHARGING	06-10-25 09:49:21	06-10-25 10:24:26	35.09	51.2	80.0	98.0	119.39	129.96	91.14
15	1616	DISCHARGING	06-10-25 10:25:47	06-10-25 12:27:53	122.1	80.0	57.6	98.0	92.86	97.09	95.44
15	1617	DISCHARGING	06-10-25 12:35:28	06-10-25 15:35:08	179.67	56.0	34.8	98.0	87.88	85.69	97.5
15	1618	CHARGING	06-10-25 15:35:09	06-10-25 16:50:41	75.54	34.8	44.4	98.0	39.8	41.98	94.5
15	1620	CHARGING	06-10-25 16:50:44	06-10-25 18:21:35	90.86	44.4	100.0	98.0	230.48	238.81	96.39
15	1621	DISCHARGING	06-10-25 18:21:36	06-10-25 22:29:55	248.31	100.0	63.6	98.0	150.89	147.65	97.85
15	1622	CHARGING	06-10-25 22:29:56	06-10-25 22:48:14	18.31	63.6	76.4	98.0	53.06	55.76	94.91
15	1623	DISCHARGING	06-10-25 22:48:15	07-10-25 03:46:26	298.19	76.4	38.0	98.0	159.18	160.35	99.27
15	1624	CHARGING	07-10-25 03:55:07	07-10-25 06:24:11	149.07	38.0	100.0	98.0	257.02	269.19	95.26
15	1628	DISCHARGING	07-10-25 15:17:44	07-10-25 20:39:48	322.07	100.0	58.0	98.0	174.11	177.14	98.26
15	1629	CHARGING	07-10-25 20:39:49	07-10-25 21:15:33	35.73	58.0	81.2	98.0	96.17	121.07	74.12
15	1630	DISCHARGING	07-10-25 21:15:34	08-10-25 01:31:37	256.05	81.2	44.8	98.0	150.89	150.99	99.93
15	1638	DISCHARGING	08-10-25 01:34:58	08-10-25 01:37:08	2.17	44.8	44.8	98.0	0.0	1.36	nan
15	1639	CHARGING	08-10-25 01:37:09	08-10-25 02:45:51	68.7	44.8	98.8	98.0	223.85	220.65	98.57

Vehicle 15 – Session SoC Accuracy (Page 3/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
15	1641	CHARGING	08-10-25 02:45:54	08-10-25 02:46:19	0.41	98.8	98.8	98.0	0.0	0.51	nan
15	1642	CHARGING	08-10-25 03:03:41	08-10-25 03:03:44	0.05	98.8	98.8	98.0	0.0	4.94	nan
15	1643	DISCHARGING	08-10-25 03:03:45	08-10-25 03:03:46	0.01	98.8	98.8	98.0	0.0	0.0	nan
15	1646	DISCHARGING	08-10-25 04:54:00	08-10-25 09:02:19	248.31	98.8	59.2	98.0	164.16	166.96	98.29
15	1647	CHARGING	08-10-25 09:02:46	08-10-25 09:32:04	29.31	59.2	80.0	98.0	86.22	97.01	87.49
15	1648	DISCHARGING	08-10-25 09:32:05	08-10-25 14:28:22	296.28	80.0	39.6	98.0	167.47	165.72	98.95
15	1649	CHARGING	08-10-25 14:34:03	08-10-25 16:46:18	132.25	39.6	100.0	98.0	250.38	256.27	97.65
15	1652	DISCHARGING	08-10-25 16:47:01	09-10-25 01:23:31	516.48	100.0	44.4	98.0	230.48	229.19	99.44
15	1653	CHARGING	09-10-25 01:23:33	09-10-25 04:08:13	164.67	44.4	100.0	98.0	230.48	241.42	95.26
15	1655	DISCHARGING	09-10-25 04:55:56	09-10-25 09:08:31	252.58	100.0	59.6	98.0	167.47	171.09	97.84
15	1656	CHARGING	09-10-25 09:08:39	09-10-25 09:32:37	23.96	59.6	76.8	98.0	71.3	75.63	93.93
15	1657	DISCHARGING	09-10-25 09:32:38	09-10-25 14:06:08	273.51	76.8	38.0	98.0	160.84	164.43	97.77
15	1659	CHARGING	09-10-25 14:40:29	09-10-25 16:02:44	82.25	38.0	100.0	98.0	257.02	270.1	94.91
15	1660	DISCHARGING	09-10-25 16:11:29	10-10-25 02:05:47	594.3	100.0	42.8	98.0	237.12	228.88	96.53
15	1661	CHARGING	10-10-25 02:05:55	10-10-25 03:30:37	84.7	42.8	100.0	98.0	237.12	250.07	94.54
15	1662	DISCHARGING	10-10-25 03:30:41	10-10-25 08:13:30	282.83	100.0	60.4	98.0	164.16	158.35	96.46
15	1663	CHARGING	10-10-25 08:13:31	10-10-25 09:05:36	52.07	60.4	68.4	98.0	33.16	33.07	99.72
15	1664	DISCHARGING	10-10-25 09:05:39	10-10-25 09:13:43	8.06	68.4	68.4	98.0	0.0	0.03	nan
15	1665	CHARGING	10-10-25 09:13:45	10-10-25 09:14:12	0.45	68.4	68.4	98.0	0.0	2.38	nan
15	1667	CHARGING	10-10-25 09:14:14	10-10-25 09:29:43	15.48	68.4	76.8	98.0	34.82	36.81	94.29
15	1668	DISCHARGING	10-10-25 09:29:45	10-10-25 15:35:42	365.96	76.8	35.2	98.0	172.45	174.38	98.88
15	1669	CHARGING	10-10-25 15:35:44	10-10-25 16:45:11	69.45	35.2	72.8	98.0	155.87	163.73	94.95
15	1670	DISCHARGING	10-10-25 16:45:14	10-10-25 16:48:03	2.81	72.8	72.8	98.0	0.0	0.04	nan
15	1671	CHARGING	10-10-25 16:48:04	10-10-25 17:00:22	12.31	72.8	82.4	98.0	39.8	44.01	89.41
15	1672	DISCHARGING	10-10-25 17:00:23	10-10-25 22:06:59	306.6	82.4	42.0	98.0	167.47	165.34	98.73
15	1673	CHARGING	10-10-25 22:07:00	10-10-25 22:53:01	46.01	42.0	80.4	98.0	159.18	174.41	90.44
15	1676	DISCHARGING	10-10-25 22:54:14	11-10-25 03:43:09	288.91	80.4	42.8	98.0	155.87	155.42	99.72
15	1677	CHARGING	11-10-25 03:43:10	11-10-25 04:57:08	73.97	42.8	98.8	98.0	232.14	241.71	95.88
15	1678	DISCHARGING	11-10-25 04:57:09	11-10-25 09:15:17	258.13	98.8	60.4	98.0	159.18	161.98	98.24
15	1679	CHARGING	11-10-25 09:15:53	11-10-25 09:43:28	27.59	60.4	76.0	98.0	64.67	68.42	94.21

Vehicle 15 – Session SoC Accuracy (Page 4/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
15	1681	DISCHARGING	11-10-25 09:48:56	11-10-25 14:03:15	254.31	76.0	34.4	98.0	172.45	171.73	99.58
15	1682	CHARGING	11-10-25 14:03:16	11-10-25 15:52:47	109.51	34.4	100.0	98.0	271.94	284.67	95.32
15	1683	DISCHARGING	11-10-25 15:52:48	12-10-25 02:10:44	617.94	100.0	40.8	98.0	245.41	237.88	96.93
15	1684	CHARGING	12-10-25 02:10:45	12-10-25 03:26:06	75.34	40.8	94.8	98.0	223.85	242.43	91.7
15	1685	DISCHARGING	12-10-25 03:26:07	12-10-25 08:06:43	280.61	94.8	48.4	98.0	192.35	195.31	98.46
15	1686	CHARGING	12-10-25 08:07:45	12-10-25 08:46:08	38.38	48.4	80.0	98.0	131.0	146.46	88.19
15	1687	DISCHARGING	12-10-25 08:47:42	12-10-25 16:12:57	445.24	80.0	27.2	98.0	218.88	212.41	97.05
15	1688	CHARGING	12-10-25 16:12:58	12-10-25 17:25:05	72.11	27.2	87.6	98.0	250.38	254.16	98.49
15	1689	DISCHARGING	12-10-25 17:25:06	12-10-25 22:05:29	280.38	87.6	45.6	98.0	174.11	175.28	99.32
15	1690	CHARGING	12-10-25 22:12:03	12-10-25 23:08:13	56.17	45.6	78.8	98.0	137.63	145.77	94.08
15	1691	DISCHARGING	12-10-25 23:08:42	13-10-25 03:50:18	281.6	78.8	39.2	98.0	164.16	164.72	99.65
15	1694	CHARGING	13-10-25 03:50:39	13-10-25 05:16:01	85.37	39.2	100.0	98.0	252.04	254.12	99.17
15	1695	DISCHARGING	13-10-25 05:16:48	13-10-25 06:34:30	77.71	100.0	98.8	98.0	4.97	0.38	7.61
15	1696	DISCHARGING	13-10-25 06:40:36	13-10-25 06:43:44	3.13	98.8	98.8	98.0	0.0	0.12	nan
15	1697	DISCHARGING	13-10-25 06:59:01	13-10-25 07:05:14	6.23	98.8	98.4	98.0	1.66	0.17	10.02
15	1698	DISCHARGING	13-10-25 07:12:01	13-10-25 07:20:41	8.66	98.4	98.4	98.0	0.0	0.18	nan
15	1699	DISCHARGING	13-10-25 08:57:15	13-10-25 09:08:16	11.01	98.4	98.4	98.0	0.0	0.14	nan
15	1700	DISCHARGING	13-10-25 09:31:39	13-10-25 09:35:26	3.79	98.4	98.4	98.0	0.0	0.11	nan
15	1702	DISCHARGING	13-10-25 12:10:08	13-10-25 13:49:23	99.26	98.4	98.0	98.0	1.66	0.12	7.04
15	1703	DISCHARGING	13-10-25 13:58:57	13-10-25 20:05:50	366.88	98.0	58.4	98.0	164.16	163.9	99.84
15	1704	CHARGING	13-10-25 20:07:27	13-10-25 20:40:44	33.29	58.4	79.6	98.0	87.88	100.91	85.17
15	1705	DISCHARGING	13-10-25 20:40:45	14-10-25 00:45:35	244.83	79.6	44.0	98.0	147.58	151.95	97.04
15	1706	CHARGING	14-10-25 00:45:36	14-10-25 02:38:27	112.84	44.0	88.0	98.0	182.4	211.6	83.99
15	1707	CHARGING	14-10-25 02:43:53	14-10-25 03:53:20	69.46	90.0	100.0	98.0	41.45	14.52	35.02
15	1709	DISCHARGING	14-10-25 06:03:17	14-10-25 06:19:10	15.89	100.0	99.2	98.0	3.32	1.49	44.83
15	1710	DISCHARGING	14-10-25 08:57:05	14-10-25 10:34:49	97.74	99.2	97.2	98.0	8.29	6.5	78.4
15	1714	DISCHARGING	14-10-25 16:27:51	14-10-25 21:42:04	314.22	97.2	58.8	98.0	159.18	157.03	98.65
15	1715	CHARGING	14-10-25 21:42:06	14-10-25 21:59:23	17.29	58.8	71.6	98.0	53.06	55.48	95.43
15	1717	CHARGING	14-10-25 21:59:25	14-10-25 22:14:11	14.76	71.6	80.0	98.0	34.82	41.73	80.17
15	1718	DISCHARGING	14-10-25 22:14:12	15-10-25 03:36:02	321.83	80.0	40.8	98.0	162.5	156.82	96.5

Vehicle 15 – Session SoC Accuracy (Page 5/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
15	1719	DISCHARGING	15-10-25 04:36:36	15-10-25 06:07:57	91.35	40.8	40.8	98.0	0.0	0.28	nan
15	1720	CHARGING	15-10-25 06:08:01	15-10-25 06:10:16	2.26	40.8	41.2	98.0	1.66	2.7	37.44
15	1722	CHARGING	15-10-25 06:11:34	15-10-25 06:14:32	2.98	41.2	41.2	98.0	0.0	0.4	nan
15	1724	CHARGING	15-10-25 06:14:35	15-10-25 07:32:31	77.94	41.2	100.0	98.0	243.75	251.59	96.78
15	1726	DISCHARGING	15-10-25 08:03:23	15-10-25 08:05:33	2.16	100.0	99.6	98.0	1.66	0.09	5.25
15	1727	DISCHARGING	15-10-25 13:13:37	15-10-25 13:43:24	29.79	99.6	98.8	98.0	3.32	2.17	65.38
15	1728	DISCHARGING	15-10-25 14:48:28	15-10-25 21:01:27	372.98	98.8	55.2	98.0	180.74	176.57	97.69
15	1729	CHARGING	15-10-25 21:02:14	15-10-25 21:33:55	31.68	55.2	79.2	98.0	99.49	106.58	92.88
15	1730	DISCHARGING	15-10-25 21:33:56	16-10-25 02:10:52	276.94	79.2	42.0	98.0	154.21	159.09	96.84
15	1731	CHARGING	16-10-25 02:37:33	16-10-25 02:57:42	20.14	42.0	58.8	98.0	69.64	72.9	95.32
15	1736	CHARGING	16-10-25 05:26:03	16-10-25 09:00:53	214.83	58.8	100.0	98.0	170.79	178.8	95.31
15	1738	DISCHARGING	16-10-25 10:12:12	16-10-25 11:56:19	104.11	100.0	97.2	98.0	11.61	6.3	54.23
15	1739	DISCHARGING	16-10-25 13:29:11	16-10-25 13:32:32	3.35	97.2	97.2	98.0	0.0	0.08	nan
15	1740	DISCHARGING	16-10-25 13:44:15	16-10-25 13:47:02	2.79	97.2	97.2	98.0	0.0	2.26	nan
15	1742	DISCHARGING	16-10-25 16:17:30	16-10-25 21:38:27	320.96	97.2	58.0	98.0	162.5	161.62	99.46
15	1743	CHARGING	16-10-25 21:39:01	16-10-25 22:06:40	27.65	58.0	80.0	98.0	91.2	100.93	89.33
15	1744	DISCHARGING	16-10-25 22:06:41	17-10-25 03:06:03	299.35	80.0	41.2	98.0	160.84	159.99	99.47
15	1745	CHARGING	17-10-25 03:07:03	17-10-25 04:32:25	85.37	41.2	100.0	98.0	243.75	250.48	97.24
15	1746	DISCHARGING	17-10-25 04:55:39	17-10-25 09:14:44	259.09	100.0	60.0	98.0	165.82	160.0	96.49
15	1747	CHARGING	17-10-25 09:15:36	17-10-25 09:38:58	23.37	60.0	76.8	98.0	69.64	73.68	94.2
15	1748	DISCHARGING	17-10-25 09:38:59	17-10-25 14:15:26	276.45	76.8	37.2	98.0	164.16	163.94	99.87
15	1749	CHARGING	17-10-25 14:15:27	17-10-25 16:47:08	151.68	37.2	100.0	98.0	260.33	272.52	95.32
15	1750	DISCHARGING	17-10-25 16:47:09	18-10-25 01:56:22	549.21	100.0	45.2	98.0	227.17	222.46	97.93
15	1751	CHARGING	18-10-25 01:56:23	18-10-25 03:20:32	84.15	45.2	100.0	98.0	227.17	238.36	95.07
15	1752	DISCHARGING	18-10-25 03:20:33	18-10-25 08:04:29	283.92	100.0	56.8	98.0	179.08	176.48	98.54
15	1755	CHARGING	18-10-25 08:08:21	18-10-25 08:45:23	37.03	56.8	82.4	98.0	106.12	133.19	74.49
15	1756	DISCHARGING	18-10-25 08:47:39	18-10-25 14:41:20	353.67	82.4	36.0	98.0	192.35	192.62	99.86
15	1757	CHARGING	18-10-25 14:41:21	18-10-25 15:50:22	69.01	36.0	94.4	98.0	242.09	243.03	99.61
15	1758	DISCHARGING	18-10-25 15:50:26	18-10-25 21:27:25	336.97	94.4	57.6	98.0	152.55	154.58	98.67
15	1759	CHARGING	18-10-25 21:27:26	18-10-25 21:56:05	28.65	57.6	80.0	98.0	92.86	100.51	91.76

Vehicle 15 – Session SoC Accuracy (Page 6/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
15	1760	DISCHARGING	18-10-25 21:56:06	19-10-25 02:55:37	299.51	80.0	39.2	98.0	169.13	169.31	99.89
15	1761	CHARGING	19-10-25 02:55:38	19-10-25 04:08:31	72.89	39.2	92.8	98.0	222.19	235.29	94.11
15	1762	DISCHARGING	19-10-25 04:08:32	19-10-25 08:39:22	270.83	92.8	53.6	97.74	162.07	167.44	96.69
15	1763	CHARGING	19-10-25 08:40:13	19-10-25 09:15:41	35.48	53.6	80.0	97.6	108.99	119.44	90.42
15	1764	DISCHARGING	19-10-25 09:16:12	19-10-25 15:23:30	367.3	80.0	36.8	97.6	178.35	178.0	99.8
15	1765	CHARGING	19-10-25 15:23:31	19-10-25 16:28:35	65.07	36.8	93.6	97.6	234.5	235.04	99.77
15	1766	DISCHARGING	19-10-25 16:28:37	19-10-25 21:08:25	279.79	93.6	59.6	97.6	140.37	145.41	96.41
15	1767	CHARGING	19-10-25 21:09:26	19-10-25 21:36:03	26.62	59.6	80.0	97.6	84.22	93.01	89.57
15	1768	DISCHARGING	19-10-25 21:36:04	20-10-25 01:26:55	230.85	80.0	48.4	97.6	130.46	131.62	99.11
15	1769	DISCHARGING	20-10-25 01:34:32	20-10-25 01:55:34	21.04	48.4	48.4	97.6	0.0	0.27	nan
15	1770	CHARGING	20-10-25 01:55:35	20-10-25 04:03:59	128.4	48.4	100.0	97.6	213.03	221.94	95.81
15	1771	DISCHARGING	20-10-25 04:04:00	20-10-25 08:59:39	295.64	100.0	58.4	97.6	171.74	172.38	99.63
15	1772	CHARGING	20-10-25 09:01:35	20-10-25 09:35:19	33.73	58.4	80.0	97.6	89.18	110.92	75.61
15	1773	DISCHARGING	20-10-25 09:35:19	20-10-25 14:13:14	277.91	80.0	40.4	97.6	163.49	160.92	98.43
15	1774	CHARGING	20-10-25 14:13:15	20-10-25 15:50:51	97.59	40.4	100.0	97.6	246.06	252.3	97.46
15	1776	DISCHARGING	20-10-25 16:15:16	20-10-25 21:36:16	321.0	100.0	63.6	97.6	150.28	148.97	99.13
15	1777	CHARGING	20-10-25 21:36:18	20-10-25 22:03:13	26.92	63.6	80.0	97.6	67.71	78.19	84.52
15	1778	DISCHARGING	20-10-25 22:03:14	21-10-25 03:27:07	323.89	80.0	41.6	97.6	158.53	159.43	99.44
15	1779	CHARGING	21-10-25 03:27:54	21-10-25 04:54:59	87.08	41.6	100.0	97.6	241.1	250.07	96.28
15	1780	DISCHARGING	21-10-25 04:55:00	21-10-25 08:51:56	236.94	100.0	60.8	97.6	161.84	168.4	95.95
15	1781	CHARGING	21-10-25 08:51:57	21-10-25 09:22:43	30.76	60.8	80.0	97.6	79.27	83.79	94.3
15	1782	DISCHARGING	21-10-25 09:22:44	21-10-25 13:19:32	236.79	80.0	40.0	97.6	165.14	171.48	96.16
15	1783	CHARGING	21-10-25 13:19:33	21-10-25 14:40:29	80.94	40.0	100.0	97.6	247.71	264.39	93.27
15	1784	DISCHARGING	21-10-25 14:40:30	21-10-25 14:55:35	15.09	100.0	99.6	97.6	1.65	0.67	40.35
15	1786	DISCHARGING	21-10-25 16:37:54	22-10-25 01:30:44	532.82	99.2	36.8	97.6	257.62	254.22	98.68
15	1787	CHARGING	22-10-25 01:30:45	22-10-25 03:12:30	101.75	36.8	100.0	97.6	260.92	276.03	94.21
15	1788	DISCHARGING	22-10-25 03:12:34	22-10-25 08:10:45	298.18	100.0	56.8	97.6	178.35	177.94	99.77
15	1789	CHARGING	22-10-25 08:10:46	22-10-25 08:44:20	33.57	56.8	80.0	97.6	95.78	123.05	71.53
15	1790	DISCHARGING	22-10-25 08:44:21	22-10-25 14:47:21	363.0	80.0	37.2	97.6	176.7	172.45	97.59
15	1793	CHARGING	22-10-25 14:50:12	22-10-25 15:54:16	64.07	37.2	90.0	97.6	217.98	232.4	93.39

Vehicle 15 – Session SoC Accuracy (Page 7/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
15	1794	DISCHARGING	22-10-25 15:54:17	22-10-25 21:03:03	308.76	90.0	54.4	97.6	146.97	151.05	97.23
15	1795	CHARGING	22-10-25 21:03:04	22-10-25 21:36:29	33.42	54.4	80.0	97.6	105.69	120.71	85.79
15	1796	DISCHARGING	22-10-25 21:36:30	23-10-25 02:02:25	265.92	80.0	41.2	97.6	160.18	162.28	98.69
15	1797	CHARGING	23-10-25 02:03:46	23-10-25 03:20:53	77.1	41.2	92.8	97.6	213.03	220.57	96.46
15	1805	CHARGING	23-10-25 04:01:13	23-10-25 04:19:59	18.77	92.4	100.0	97.6	31.38	7.45	23.73
15	1806	DISCHARGING	23-10-25 04:20:00	23-10-25 09:29:54	309.89	100.0	56.4	97.6	180.0	178.34	99.07
15	1807	CHARGING	23-10-25 09:29:56	23-10-25 10:02:43	32.79	56.4	80.0	97.6	97.43	110.28	86.82
15	1808	DISCHARGING	23-10-25 10:02:44	23-10-25 16:10:58	368.23	80.0	32.4	97.6	196.52	193.66	98.55
15	1809	CHARGING	23-10-25 16:11:00	23-10-25 17:18:08	67.14	32.4	86.4	97.6	222.94	243.63	90.72
15	1810	DISCHARGING	23-10-25 17:18:09	23-10-25 21:41:04	262.92	86.4	48.0	97.6	158.53	163.03	97.16
15	1811	CHARGING	23-10-25 21:41:06	23-10-25 22:19:01	37.92	48.0	80.0	97.6	132.11	146.82	88.87
15	1812	DISCHARGING	23-10-25 22:19:03	24-10-25 02:48:20	269.28	80.0	40.8	97.6	161.84	163.4	99.03
15	1813	CHARGING	24-10-25 02:49:01	24-10-25 04:27:53	98.86	40.8	100.0	97.6	244.41	242.26	99.12
15	1820	DISCHARGING	24-10-25 04:53:40	24-10-25 08:56:29	242.82	100.0	65.2	97.6	143.67	141.8	98.7
15	1821	CHARGING	24-10-25 08:56:31	24-10-25 09:20:58	24.44	65.2	80.0	97.6	61.1	71.9	82.33
15	1822	DISCHARGING	24-10-25 09:20:59	24-10-25 13:56:56	275.95	80.0	42.0	97.6	156.88	160.1	97.95
15	1823	CHARGING	24-10-25 13:56:57	24-10-25 15:52:20	115.37	42.0	100.0	97.6	239.45	245.56	97.45
15	1824	DISCHARGING	24-10-25 15:52:20	25-10-25 01:40:46	588.42	100.0	37.6	97.6	257.62	255.15	99.04
15	1825	CHARGING	25-10-25 01:41:29	25-10-25 03:00:19	78.84	37.6	100.0	97.6	257.62	270.68	94.93
15	1826	DISCHARGING	25-10-25 03:00:20	25-10-25 08:03:13	302.87	100.0	58.4	97.6	171.74	173.9	98.74
15	1827	CHARGING	25-10-25 08:03:48	25-10-25 08:28:51	25.06	58.4	80.0	97.6	89.18	96.5	91.79
15	1828	DISCHARGING	25-10-25 08:28:54	25-10-25 13:35:12	306.32	80.0	34.8	97.6	186.61	190.53	97.9
15	1829	CHARGING	25-10-25 13:35:13	25-10-25 15:28:43	113.49	34.8	100.0	97.6	269.18	282.49	95.05
15	1830	DISCHARGING	25-10-25 15:28:43	25-10-25 20:45:20	316.62	100.0	60.4	97.6	163.49	163.52	99.98
15	1831	CHARGING	25-10-25 20:45:21	25-10-25 21:11:05	25.73	60.4	80.0	97.6	80.92	96.91	80.24
15	1832	DISCHARGING	25-10-25 21:11:06	26-10-25 02:01:27	290.35	80.0	38.0	97.6	173.4	170.13	98.12
15	1833	CHARGING	26-10-25 02:01:54	26-10-25 02:02:41	0.79	38.0	38.0	97.6	0.0	0.22	nan
15	1835	CHARGING	26-10-25 02:03:27	26-10-25 02:04:17	0.84	38.0	38.4	97.6	1.65	0.35	21.01
15	1837	CHARGING	26-10-25 02:06:00	26-10-25 04:16:48	130.8	38.4	100.0	97.6	254.31	257.5	98.75
15	1838	DISCHARGING	26-10-25 04:16:49	26-10-25 09:02:32	285.72	100.0	54.8	97.6	186.61	188.2	99.15

Vehicle 15 – Session SoC Accuracy (Page 8/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
15	1839	CHARGING	26-10-25 09:02:33	26-10-25 09:38:47	36.23	54.8	80.0	97.6	104.04	116.06	88.44
15	1840	DISCHARGING	26-10-25 09:38:50	26-10-25 15:17:50	338.99	80.0	36.0	97.6	181.65	176.08	96.93
15	1843	CHARGING	26-10-25 15:19:59	26-10-25 16:49:48	89.82	36.0	100.0	97.6	264.22	271.33	97.31
15	1844	DISCHARGING	26-10-25 16:49:49	26-10-25 21:31:55	282.1	100.0	62.4	97.6	155.23	156.8	98.99
15	1845	CHARGING	26-10-25 21:31:56	26-10-25 22:05:29	33.54	62.4	84.8	97.6	92.48	118.76	71.58
15	1846	DISCHARGING	26-10-25 22:05:30	27-10-25 02:58:27	292.95	84.8	44.0	97.6	168.44	174.05	96.67
15	1847	CHARGING	27-10-25 02:59:42	27-10-25 04:25:43	86.03	44.0	100.0	97.6	231.2	223.56	96.7
15	1848	DISCHARGING	27-10-25 04:25:46	27-10-25 09:19:04	293.29	100.0	63.6	97.6	150.28	147.53	98.17
15	1849	CHARGING	27-10-25 09:19:05	27-10-25 09:36:59	17.91	63.6	76.4	97.6	52.84	57.3	91.57
15	1850	DISCHARGING	27-10-25 09:37:00	27-10-25 13:55:30	258.5	76.4	38.0	97.6	158.53	163.58	96.82
15	1851	CHARGING	27-10-25 13:55:31	27-10-25 16:19:07	143.59	38.0	100.0	97.6	255.97	270.11	94.47
15	1852	DISCHARGING	27-10-25 16:19:08	28-10-25 03:01:46	642.64	100.0	40.8	97.6	244.41	241.98	99.01
15	1853	CHARGING	28-10-25 03:30:16	28-10-25 03:34:54	4.63	40.8	41.2	97.6	1.65	3.14	9.99
15	1855	CHARGING	28-10-25 03:37:36	28-10-25 03:38:27	0.84	41.2	41.6	97.6	1.65	0.5	30.39
15	1857	CHARGING	28-10-25 03:39:16	28-10-25 05:04:40	85.41	41.6	100.0	97.6	241.1	256.14	93.76
15	1858	DISCHARGING	28-10-25 05:04:43	28-10-25 05:30:33	25.83	100.0	99.6	97.6	1.65	0.86	52.25
15	1859	DISCHARGING	28-10-25 05:38:46	28-10-25 05:39:49	1.06	99.6	99.6	97.6	0.0	0.0	nan
15	1860	DISCHARGING	28-10-25 06:26:37	28-10-25 11:30:19	303.7	99.6	93.6	97.6	24.77	9.94	40.13
15	1861	DISCHARGING	28-10-25 15:08:27	28-10-25 21:21:52	373.41	93.6	52.4	97.6	170.09	170.01	99.95
15	1862	CHARGING	28-10-25 21:21:53	28-10-25 21:46:10	24.29	52.4	68.4	97.6	66.06	72.19	90.72
15	1863	DISCHARGING	28-10-25 21:46:11	29-10-25 01:25:40	219.49	68.4	33.6	97.6	143.67	138.73	96.56
15	1864	CHARGING	29-10-25 01:37:41	29-10-25 03:42:34	124.89	33.6	100.0	97.6	274.13	279.55	98.02
15	1865	DISCHARGING	29-10-25 03:42:35	29-10-25 10:16:47	394.21	100.0	59.2	97.6	168.44	158.52	94.11
15	1868	CHARGING	29-10-25 10:17:27	29-10-25 11:12:04	54.62	59.2	94.8	97.6	146.97	173.07	82.24
15	1869	DISCHARGING	29-10-25 11:12:05	29-10-25 14:46:05	213.99	94.8	62.8	97.6	132.11	131.31	99.39
15	1870	CHARGING	29-10-25 14:46:06	29-10-25 15:45:52	59.77	62.8	100.0	97.6	153.58	144.66	94.19
15	1872	CHARGING	29-10-25 15:45:56	29-10-25 15:47:43	1.77	100.0	100.0	97.6	0.0	1.22	nan
15	1873	DISCHARGING	29-10-25 15:47:44	30-10-25 01:09:41	561.95	100.0	29.6	97.6	290.64	283.17	97.43
15	1556	DISCHARGING	30-09-25 18:30:00	01-10-25 02:42:50	492.83	93.6	37.6	98.4	233.09	238.17	97.82
15	1874	CHARGING	30-10-25 01:09:42	30-10-25 03:48:48	159.09	29.6	90.0	97.6	249.36	284.85	85.77

Vehicle 15 — Session SoC Accuracy (Page 9/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
15	1875	DISCHARGING	30-10-25 03:48:50	30-10-25 10:02:45	373.92	90.0	51.6	97.6	158.53	156.51	98.72
15	1878	CHARGING	30-10-25 10:04:28	30-10-25 10:29:26	24.98	51.6	69.6	97.6	74.31	78.86	93.88
15	1880	CHARGING	30-10-25 10:29:44	30-10-25 10:38:11	8.45	69.6	74.8	97.6	21.47	22.55	94.95
15	1881	DISCHARGING	30-10-25 10:38:13	30-10-25 14:14:40	216.44	74.8	39.6	97.6	145.32	145.95	99.57
15	1882	CHARGING	30-10-25 14:14:41	30-10-25 15:36:21	81.67	39.6	100.0	97.6	249.36	238.94	95.82
15	1883	DISCHARGING	30-10-25 15:36:24	30-10-25 16:22:48	46.39	100.0	100.0	97.6	0.0	1.28	nan
15	1884	DISCHARGING	31-10-25 02:57:44	31-10-25 08:11:43	313.98	100.0	56.8	97.37	177.93	171.99	96.66
15	1885	CHARGING	31-10-25 08:12:06	31-10-25 08:48:43	36.62	56.8	80.0	97.2	95.39	108.53	86.23
15	1886	DISCHARGING	31-10-25 08:48:44	31-10-25 14:20:57	332.22	80.0	37.2	97.2	175.98	174.35	99.08
15	1887	CHARGING	31-10-25 14:21:35	31-10-25 15:34:16	72.68	37.2	96.8	97.2	245.05	259.85	93.96
15	1888	DISCHARGING	31-10-25 15:34:17	31-10-25 18:29:58	175.68	96.8	78.8	97.2	74.01	71.19	96.19

Vehicle 16 – Session SoC Accuracy (Page 1/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
16	1890	CHARGING	01-10-25 00:26:15	01-10-25 00:45:43	19.47	38.0	47.2	98.8	38.45	38.71	99.33
16	1891	DISCHARGING	01-10-25 00:45:44	01-10-25 00:50:14	4.5	47.2	46.8	98.8	1.67	0.73	43.9
16	1893	DISCHARGING	01-10-25 00:50:28	01-10-25 01:02:03	11.59	46.8	46.8	98.8	0.0	1.9	nan
16	1894	CHARGING	01-10-25 01:02:04	01-10-25 01:43:08	41.07	46.8	72.8	98.8	108.66	117.04	92.29
16	1896	CHARGING	01-10-25 01:43:10	01-10-25 02:10:39	27.48	72.8	88.0	98.8	63.52	100.91	41.15
16	1897	DISCHARGING	01-10-25 02:10:40	01-10-25 02:13:05	2.41	88.0	88.0	98.8	0.0	0.12	nan
16	1898	CHARGING	01-10-25 02:13:06	01-10-25 02:26:07	13.01	88.0	100.0	98.8	50.15	29.83	59.49
16	1901	DISCHARGING	01-10-25 02:26:54	01-10-25 04:59:07	152.22	100.0	89.6	98.8	43.46	41.66	95.84
16	1902	DISCHARGING	01-10-25 05:04:07	01-10-25 05:41:44	37.61	89.2	86.0	98.8	13.37	11.29	84.44
16	1903	DISCHARGING	01-10-25 05:53:23	01-10-25 09:04:15	190.86	84.8	50.4	98.8	143.77	143.01	99.47
16	1904	CHARGING	01-10-25 09:04:16	01-10-25 09:42:37	38.35	50.4	62.0	98.8	48.48	51.95	92.83
16	1905	DISCHARGING	01-10-25 09:42:38	01-10-25 12:44:06	181.47	62.0	27.6	98.8	143.77	138.01	96.0
16	1906	CHARGING	01-10-25 12:44:08	01-10-25 13:14:47	30.66	27.6	54.4	98.8	112.0	117.5	95.1
16	1907	DISCHARGING	01-10-25 13:14:48	01-10-25 13:15:39	0.85	54.4	54.4	98.8	0.0	1.82	nan
16	1908	CHARGING	01-10-25 13:15:40	01-10-25 13:19:21	3.68	54.4	56.0	98.8	6.69	6.42	95.99
16	1910	CHARGING	01-10-25 13:20:14	01-10-25 13:52:13	31.98	56.0	80.0	98.8	100.3	119.05	81.31
16	1912	CHARGING	01-10-25 13:52:15	01-10-25 14:18:10	25.92	80.0	100.0	98.8	83.58	78.92	94.42
16	1913	DISCHARGING	01-10-25 14:18:11	01-10-25 23:53:24	575.22	100.0	36.4	98.8	265.8	257.98	97.06
16	1914	CHARGING	01-10-25 23:53:25	02-10-25 00:27:41	34.27	36.4	63.2	98.8	112.0	120.02	92.85
16	1916	CHARGING	02-10-25 00:27:44	02-10-25 00:33:37	5.89	63.2	66.0	98.8	11.7	17.89	47.13
16	1918	CHARGING	02-10-25 00:33:39	02-10-25 01:34:08	60.47	65.2	100.0	98.8	145.44	150.24	96.7
16	1920	DISCHARGING	02-10-25 02:20:12	02-10-25 09:08:36	408.41	100.0	53.2	98.8	195.59	190.36	97.33
16	1927	CHARGING	02-10-25 09:16:57	02-10-25 09:43:31	26.56	53.2	53.2	98.8	0.0	0.06	nan
16	1928	DISCHARGING	02-10-25 09:43:31	02-10-25 12:52:09	188.62	53.2	20.4	98.8	137.08	139.37	98.33
16	1929	CHARGING	02-10-25 12:52:09	02-10-25 13:26:28	34.31	20.4	47.2	98.8	112.0	118.18	94.48
16	1931	CHARGING	02-10-25 13:26:30	02-10-25 13:58:36	32.1	47.2	73.6	98.8	110.33	117.7	93.32
16	1932	DISCHARGING	02-10-25 13:58:38	02-10-25 13:59:34	0.94	73.6	73.6	98.8	0.0	1.79	nan
16	1933	CHARGING	02-10-25 13:59:35	02-10-25 14:03:15	3.66	73.6	75.2	98.8	6.69	6.47	96.73
16	1935	CHARGING	02-10-25 14:04:10	02-10-25 14:38:25	34.24	75.2	100.0	98.8	103.64	111.43	92.49
16	1936	DISCHARGING	02-10-25 14:38:26	02-10-25 23:13:01	514.59	100.0	37.2	98.8	262.46	265.12	98.99

Vehicle 16 – Session SoC Accuracy (Page 2/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
16	1937	CHARGING	02-10-25 23:13:02	02-10-25 23:48:10	35.14	37.2	63.2	98.8	108.66	116.74	92.57
16	1939	CHARGING	02-10-25 23:49:13	03-10-25 00:43:17	54.07	63.2	88.0	98.8	103.64	134.86	69.88
16	1945	CHARGING	03-10-25 00:56:05	03-10-25 01:03:18	7.2	88.0	88.0	98.8	0.0	0.24	nan
16	1946	DISCHARGING	03-10-25 01:03:19	03-10-25 01:59:04	55.76	88.0	86.0	98.8	8.36	4.19	50.08
16	1948	DISCHARGING	03-10-25 03:10:02	03-10-25 09:35:28	385.43	86.0	39.2	98.8	195.59	196.75	99.41
16	1949	CHARGING	03-10-25 09:35:29	03-10-25 10:39:27	63.96	39.2	51.2	98.8	50.15	46.24	92.21
16	1950	DISCHARGING	03-10-25 10:39:28	03-10-25 13:44:54	185.43	51.2	16.0	98.8	147.11	146.66	99.69
16	1951	CHARGING	03-10-25 13:44:55	03-10-25 14:17:49	32.91	16.0	42.8	98.8	112.0	117.81	94.82
16	1953	CHARGING	03-10-25 14:17:52	03-10-25 14:48:40	30.8	42.8	69.2	98.8	110.33	117.71	93.31
16	1955	CHARGING	03-10-25 14:49:26	03-10-25 15:21:24	31.96	69.2	96.8	98.8	115.35	110.88	96.12
16	1957	CHARGING	03-10-25 15:22:17	03-10-25 15:26:40	4.39	96.8	100.0	98.8	13.37	2.59	19.38
16	1958	DISCHARGING	03-10-25 15:26:42	03-10-25 23:02:44	456.04	100.0	35.6	98.8	269.14	266.93	99.18
16	1959	DISCHARGING	03-10-25 23:36:10	03-10-25 23:37:08	0.97	35.6	35.6	98.8	0.0	0.0	nan
16	1960	CHARGING	03-10-25 23:39:11	03-10-25 23:44:57	5.77	35.6	37.2	98.8	6.69	7.18	92.61
16	1961	DISCHARGING	03-10-25 23:44:58	03-10-25 23:47:09	2.19	37.2	37.2	98.8	0.0	0.01	nan
16	1962	CHARGING	03-10-25 23:47:11	03-10-25 23:49:32	2.36	37.2	37.6	98.8	1.67	0.81	48.4
16	1963	DISCHARGING	03-10-25 23:49:34	03-10-25 23:51:26	1.87	37.6	37.6	98.8	0.0	0.03	nan
16	1964	CHARGING	03-10-25 23:52:23	04-10-25 00:45:01	52.64	37.6	67.6	98.8	125.38	132.76	94.11
16	1966	CHARGING	04-10-25 00:45:03	04-10-25 00:47:06	2.05	67.6	67.6	98.8	0.0	0.83	nan
16	1970	CHARGING	04-10-25 00:48:47	04-10-25 00:55:01	6.24	67.6	69.6	98.8	8.36	9.55	85.74
16	1971	DISCHARGING	04-10-25 00:55:02	04-10-25 00:56:11	1.16	69.6	69.6	98.8	0.0	0.02	nan
16	1972	CHARGING	04-10-25 00:56:51	04-10-25 01:29:56	33.08	69.6	90.0	98.8	85.26	117.58	62.09
16	1974	CHARGING	04-10-25 01:29:58	04-10-25 01:42:34	12.61	90.0	100.0	98.8	41.79	20.68	49.49
16	1975	DISCHARGING	04-10-25 01:42:37	04-10-25 02:20:30	37.89	100.0	98.0	98.8	8.36	6.24	74.68
16	1976	DISCHARGING	04-10-25 03:09:13	04-10-25 07:35:01	265.79	98.0	74.8	98.8	96.96	94.41	97.37
16	1977	DISCHARGING	04-10-25 07:42:18	04-10-25 09:36:05	113.79	73.2	50.0	98.8	96.96	97.17	99.79
16	1978	CHARGING	04-10-25 09:36:06	04-10-25 10:12:14	36.12	50.0	60.0	98.8	41.79	44.16	94.33
16	1979	DISCHARGING	04-10-25 10:12:15	04-10-25 13:37:51	205.59	60.0	25.2	98.8	145.44	132.88	91.36
16	1980	CHARGING	04-10-25 13:37:52	04-10-25 14:09:30	31.64	25.2	52.0	98.8	112.0	117.81	94.82
16	1982	CHARGING	04-10-25 14:09:32	04-10-25 14:14:21	4.81	52.0	54.0	98.8	8.36	8.96	92.84

Vehicle 16 – Session SoC Accuracy (Page 3/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
16	1996	CHARGING	04-10-25 14:35:31	04-10-25 15:02:53	27.37	54.0	75.2	98.8	88.6	94.49	93.35
16	1998	CHARGING	04-10-25 15:03:06	04-10-25 15:10:35	7.48	75.2	78.0	98.8	11.7	11.7	99.99
16	2000	CHARGING	04-10-25 15:11:24	04-10-25 15:44:27	33.05	78.0	100.0	98.8	91.94	98.06	93.35
16	2001	DISCHARGING	04-10-25 15:44:31	04-10-25 23:35:38	471.12	100.0	37.6	98.8	260.79	264.13	98.72
16	2002	CHARGING	04-10-25 23:35:39	05-10-25 00:23:14	47.58	37.6	62.8	98.8	105.32	113.99	91.77
16	2004	CHARGING	05-10-25 00:23:24	05-10-25 00:54:15	30.86	62.8	84.4	98.8	90.27	116.58	70.86
16	2006	CHARGING	05-10-25 00:54:22	05-10-25 01:18:46	24.39	84.4	100.0	98.8	65.2	49.7	76.23
16	2007	DISCHARGING	05-10-25 01:18:47	05-10-25 01:42:43	23.94	100.0	99.6	98.8	1.67	0.2	12.2
16	2010	DISCHARGING	05-10-25 03:09:55	05-10-25 09:34:07	384.21	99.6	53.6	98.52	191.71	194.63	98.47
16	2011	DISCHARGING	05-10-25 10:08:38	05-10-25 13:28:37	199.98	53.6	19.6	98.4	141.52	140.26	99.11
16	2012	CHARGING	05-10-25 13:28:38	05-10-25 13:59:16	30.64	19.6	46.4	98.4	111.55	117.6	94.57
16	2014	CHARGING	05-10-25 14:00:27	05-10-25 14:18:51	18.41	46.4	58.0	98.4	48.28	51.05	94.27
16	2016	CHARGING	05-10-25 14:18:53	05-10-25 14:49:37	30.72	58.0	80.0	98.4	91.57	117.78	71.38
16	2018	CHARGING	05-10-25 14:51:13	05-10-25 15:19:45	28.54	80.0	100.0	98.4	83.25	70.92	85.19
16	2019	DISCHARGING	05-10-25 15:19:46	05-10-25 22:34:36	434.83	100.0	39.6	98.4	251.4	252.57	99.54
16	2021	CHARGING	06-10-25 00:09:03	06-10-25 00:52:49	43.76	39.6	77.6	98.4	158.17	170.97	91.91
16	2025	CHARGING	06-10-25 00:53:40	06-10-25 01:30:06	36.43	77.6	100.0	98.4	93.24	98.69	94.15
16	2027	DISCHARGING	06-10-25 02:05:53	06-10-25 02:09:48	3.93	100.0	99.6	98.4	1.66	0.15	9.25
16	2028	DISCHARGING	06-10-25 02:25:46	06-10-25 13:42:33	676.78	99.6	21.6	98.4	324.66	319.44	98.39
16	2029	CHARGING	06-10-25 13:42:34	06-10-25 14:13:31	30.95	21.6	48.0	98.4	109.88	116.81	93.7
16	2031	CHARGING	06-10-25 14:14:22	06-10-25 15:25:44	71.37	48.0	98.8	98.4	211.45	227.54	92.39
16	2033	CHARGING	06-10-25 15:26:33	06-10-25 15:29:16	2.72	98.8	100.0	98.4	5.0	0.99	19.85
16	2034	DISCHARGING	06-10-25 15:29:17	07-10-25 05:37:28	848.19	100.0	39.6	98.4	251.4	245.47	97.64
16	2044	CHARGING	07-10-25 08:03:16	07-10-25 08:03:54	0.62	39.6	39.6	98.4	0.0	0.61	nan
16	2047	DISCHARGING	07-10-25 08:20:44	07-10-25 08:39:19	18.59	39.6	38.8	98.4	3.33	2.76	82.76
16	2048	CHARGING	07-10-25 08:39:22	07-10-25 08:40:03	0.67	38.8	38.8	98.4	0.0	1.24	nan
16	2050	CHARGING	07-10-25 08:40:05	07-10-25 09:16:26	36.35	38.8	45.6	98.4	28.3	30.44	92.45
16	2056	CHARGING	08-10-25 00:46:13	08-10-25 01:40:25	54.2	45.6	82.4	98.4	153.17	167.92	90.38
16	2058	CHARGING	08-10-25 01:40:27	08-10-25 02:29:00	48.55	82.4	100.0	98.4	73.26	77.9	93.66
16	2062	DISCHARGING	08-10-25 02:40:10	08-10-25 13:08:59	628.82	100.0	23.6	98.4	318.0	309.43	97.3

Vehicle 16 – Session SoC Accuracy (Page 4/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
16	2063	CHARGING	08-10-25 13:09:00	08-10-25 13:40:58	31.97	23.6	50.0	98.4	109.88	115.75	94.66
16	2067	CHARGING	08-10-25 13:41:38	08-10-25 14:02:15	20.62	50.0	58.8	98.4	36.63	38.31	95.41
16	2068	DISCHARGING	08-10-25 14:02:17	08-10-25 14:04:17	2.0	58.8	58.8	98.4	0.0	1.68	nan
16	2069	CHARGING	08-10-25 14:04:19	08-10-25 14:37:02	32.72	58.8	80.4	98.4	89.91	116.53	70.39
16	2071	CHARGING	08-10-25 14:37:33	08-10-25 15:04:09	26.6	80.4	100.0	98.4	81.58	67.81	83.12
16	2072	DISCHARGING	08-10-25 15:04:11	09-10-25 00:35:54	571.73	100.0	40.8	98.4	246.41	254.34	96.78
16	2073	CHARGING	09-10-25 00:35:57	09-10-25 01:23:32	47.58	40.8	78.8	98.4	158.17	168.99	93.16
16	2075	CHARGING	09-10-25 01:23:39	09-10-25 01:55:17	31.63	78.8	100.0	98.4	88.24	95.98	91.23
16	2076	DISCHARGING	09-10-25 02:02:37	09-10-25 09:25:23	442.78	100.0	53.6	98.4	193.13	191.44	99.12
16	2077	DISCHARGING	09-10-25 09:57:53	09-10-25 12:48:46	170.89	53.6	22.0	98.4	131.53	131.37	99.88
16	2078	CHARGING	09-10-25 12:50:23	09-10-25 14:28:40	98.29	22.0	100.0	98.4	324.66	347.24	93.04
16	2079	DISCHARGING	09-10-25 14:28:42	10-10-25 00:31:11	602.49	100.0	40.0	98.4	249.74	247.95	99.28
16	2080	CHARGING	10-10-25 00:31:12	10-10-25 01:44:41	73.48	40.0	100.0	98.4	249.74	265.04	93.87
16	2081	DISCHARGING	10-10-25 01:44:42	10-10-25 01:54:18	9.6	100.0	99.6	98.4	1.66	0.89	53.31
16	2082	DISCHARGING	10-10-25 03:02:52	10-10-25 05:14:52	132.0	99.6	91.2	98.4	34.96	19.18	54.86
16	2083	DISCHARGING	10-10-25 05:19:54	10-10-25 06:36:21	76.44	91.2	84.8	98.4	26.64	25.27	94.86
16	2084	DISCHARGING	10-10-25 06:48:01	10-10-25 12:21:23	333.37	83.2	25.2	98.4	241.42	246.68	97.82
16	2085	CHARGING	10-10-25 12:21:25	10-10-25 13:34:39	73.24	25.2	82.4	98.4	238.08	271.67	85.89
16	2091	CHARGING	10-10-25 13:40:49	10-10-25 14:02:31	21.7	82.4	100.0	98.4	73.26	62.87	85.83
16	2092	DISCHARGING	10-10-25 14:02:32	11-10-25 00:35:40	633.14	100.0	38.0	98.4	258.06	255.83	99.13
16	2093	CHARGING	11-10-25 00:35:41	11-10-25 01:47:34	71.88	38.0	100.0	98.4	258.06	273.88	93.87
16	2095	DISCHARGING	11-10-25 02:25:28	11-10-25 05:26:11	180.72	100.0	90.4	98.4	39.96	32.02	80.13
16	2096	DISCHARGING	11-10-25 05:32:48	11-10-25 07:06:06	93.3	90.0	83.6	98.4	26.64	25.29	94.93
16	2097	DISCHARGING	11-10-25 07:13:09	11-10-25 10:15:36	182.46	82.4	53.2	98.4	121.54	124.6	97.48
16	2098	DISCHARGING	11-10-25 10:20:37	11-10-25 13:22:16	181.66	52.0	23.6	98.4	118.21	116.12	98.23
16	2099	CHARGING	11-10-25 13:22:17	11-10-25 13:22:25	0.12	23.6	23.6	98.4	0.0	0.02	nan
16	2100	DISCHARGING	11-10-25 13:22:26	11-10-25 13:22:30	0.06	23.6	23.6	98.4	0.0	0.01	nan
16	2101	CHARGING	11-10-25 13:22:31	11-10-25 14:31:53	69.37	23.6	80.0	98.4	234.76	261.2	88.74
16	2103	CHARGING	11-10-25 14:32:21	11-10-25 14:42:44	10.38	80.0	84.8	98.4	19.98	24.41	77.81
16	2105	CHARGING	11-10-25 14:44:06	11-10-25 15:06:00	21.91	84.8	100.0	98.4	63.27	53.37	84.36

Vehicle 16 – Session SoC Accuracy (Page 5/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
16	2106	DISCHARGING	11-10-25 15:06:01	12-10-25 00:31:34	565.56	100.0	38.4	98.4	256.4	257.05	99.75
16	2107	CHARGING	12-10-25 00:31:35	12-10-25 01:53:12	81.61	38.4	100.0	98.4	256.4	274.7	92.86
16	2109	DISCHARGING	12-10-25 02:11:13	12-10-25 02:33:09	21.93	100.0	99.6	98.4	1.66	0.37	22.47
16	2110	DISCHARGING	12-10-25 02:47:44	12-10-25 05:27:47	160.05	99.6	90.8	98.4	36.63	32.54	88.84
16	2111	DISCHARGING	12-10-25 05:37:25	12-10-25 12:40:34	423.15	90.0	20.0	98.4	291.36	291.83	99.84
16	2112	CHARGING	12-10-25 12:40:35	12-10-25 13:54:06	73.51	20.0	80.0	98.4	249.74	265.06	93.86
16	2114	CHARGING	12-10-25 13:54:08	12-10-25 14:27:58	33.83	80.0	100.0	98.4	83.25	89.64	92.32
16	2115	DISCHARGING	12-10-25 14:27:59	13-10-25 00:21:06	593.13	100.0	35.2	98.4	269.72	265.1	98.29
16	2116	CHARGING	13-10-25 00:21:07	13-10-25 01:40:19	79.18	35.2	100.0	98.4	269.72	289.02	92.84
16	2118	DISCHARGING	13-10-25 02:46:10	13-10-25 03:02:52	16.7	100.0	99.6	98.4	1.66	0.0	0.11
16	2119	DISCHARGING	13-10-25 03:09:25	13-10-25 04:01:51	52.44	99.6	96.8	98.4	11.65	9.27	79.54
16	2120	DISCHARGING	13-10-25 04:13:26	13-10-25 07:11:29	178.04	95.6	76.8	98.4	78.25	77.96	99.63
16	2121	DISCHARGING	13-10-25 07:17:05	13-10-25 12:40:45	323.67	75.6	21.2	98.4	226.43	225.37	99.53
16	2122	CHARGING	13-10-25 12:40:46	13-10-25 12:42:24	1.64	21.2	21.2	98.4	0.0	0.16	nan
16	2124	CHARGING	13-10-25 12:42:26	13-10-25 13:52:46	70.33	21.2	80.0	98.4	244.74	267.11	90.86
16	2126	CHARGING	13-10-25 13:52:48	13-10-25 14:20:16	27.46	80.0	100.0	98.4	83.25	83.75	99.39
16	2127	DISCHARGING	13-10-25 14:20:17	14-10-25 00:26:36	606.33	100.0	38.4	98.4	256.4	257.28	99.66
16	2128	CHARGING	14-10-25 00:27:58	14-10-25 01:41:30	73.53	38.4	100.0	98.4	256.4	274.3	93.02
16	2130	DISCHARGING	14-10-25 02:12:07	14-10-25 04:06:54	114.79	99.6	94.8	98.4	19.98	14.97	74.91
16	2131	DISCHARGING	14-10-25 04:18:29	14-10-25 04:41:15	22.78	93.6	91.2	98.4	9.99	9.95	99.58
16	2132	DISCHARGING	14-10-25 04:47:59	14-10-25 05:03:52	15.88	90.8	89.6	98.4	5.0	4.96	99.28
16	2133	DISCHARGING	14-10-25 05:10:30	14-10-25 06:07:03	56.55	89.2	85.2	98.4	16.65	16.28	97.79
16	2134	DISCHARGING	14-10-25 06:20:01	14-10-25 06:27:54	7.88	84.0	83.2	98.4	3.33	2.06	61.85
16	2135	DISCHARGING	14-10-25 06:35:42	14-10-25 09:33:25	177.72	82.8	50.4	98.4	134.86	136.13	99.06
16	2136	CHARGING	14-10-25 09:33:26	14-10-25 10:03:50	30.4	50.4	59.6	98.4	38.29	40.01	95.53
16	2137	DISCHARGING	14-10-25 10:03:51	14-10-25 12:50:49	166.97	59.6	29.6	98.4	124.87	122.6	98.18
16	2138	CHARGING	14-10-25 12:50:50	14-10-25 13:59:31	68.68	29.6	86.4	98.4	236.42	264.46	88.14
16	2140	CHARGING	14-10-25 14:00:21	14-10-25 14:06:39	6.3	86.4	88.8	98.4	9.99	11.92	80.69
16	2141	DISCHARGING	14-10-25 14:06:40	14-10-25 14:08:41	2.01	88.8	88.8	98.4	0.0	0.9	nan
16	2142	CHARGING	14-10-25 14:08:42	14-10-25 14:26:17	17.58	88.8	100.0	98.4	46.62	36.16	77.56

Vehicle 16 – Session SoC Accuracy (Page 6/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
16	2143	DISCHARGING	14-10-25 14:26:18	15-10-25 00:49:01	622.73	100.0	41.2	98.4	244.74	241.69	98.75
16	2144	CHARGING	15-10-25 01:21:50	15-10-25 01:22:27	0.6	41.2	41.2	98.4	0.0	0.01	nan
16	2146	CHARGING	15-10-25 01:23:13	15-10-25 02:45:36	82.39	41.2	100.0	98.4	244.74	263.26	92.44
16	2148	DISCHARGING	15-10-25 03:00:40	15-10-25 04:06:14	65.56	100.0	96.4	98.4	14.98	10.58	70.62
16	2149	DISCHARGING	15-10-25 04:16:07	15-10-25 04:23:07	6.99	96.0	96.0	98.4	0.0	1.1	nan
16	2150	DISCHARGING	15-10-25 04:29:47	15-10-25 06:22:46	112.99	95.6	87.2	98.4	34.96	35.41	98.73
16	2151	DISCHARGING	15-10-25 06:37:41	15-10-25 10:04:09	206.47	85.6	52.8	98.4	136.52	137.86	99.02
16	2156	CHARGING	15-10-25 10:08:01	15-10-25 10:31:45	23.74	52.8	55.2	98.4	9.99	10.18	98.13
16	2157	DISCHARGING	15-10-25 10:31:46	15-10-25 13:45:13	193.45	55.2	21.2	98.4	141.52	137.01	96.81
16	2158	CHARGING	15-10-25 13:45:15	15-10-25 14:56:13	70.98	21.2	80.0	98.4	244.74	266.4	91.15
16	2160	CHARGING	15-10-25 14:56:32	15-10-25 15:05:56	9.4	79.6	82.8	98.4	13.32	14.84	88.62
16	2162	CHARGING	15-10-25 15:07:21	15-10-25 15:34:25	27.08	82.8	100.0	98.4	71.59	65.97	92.15
16	2163	DISCHARGING	15-10-25 15:34:26	16-10-25 00:30:18	535.86	100.0	42.4	98.4	239.75	241.78	99.15
16	2164	CHARGING	16-10-25 00:30:21	16-10-25 02:09:31	99.16	42.4	100.0	98.4	239.75	257.8	92.47
16	2166	DISCHARGING	16-10-25 02:18:40	16-10-25 07:31:58	313.3	100.0	81.6	98.4	76.59	68.93	90.0
16	2167	DISCHARGING	16-10-25 07:44:38	16-10-25 08:11:18	26.66	80.4	75.2	98.4	21.64	17.4	80.39
16	2168	DISCHARGING	16-10-25 08:17:20	16-10-25 10:05:26	108.1	74.0	50.8	98.4	96.57	104.08	92.22
16	2169	CHARGING	16-10-25 10:05:28	16-10-25 10:10:01	4.55	50.8	50.8	98.4	0.0	0.67	nan
16	2171	CHARGING	16-10-25 10:10:03	16-10-25 10:43:13	33.17	50.8	60.8	98.4	41.62	43.62	95.2
16	2172	DISCHARGING	16-10-25 10:43:14	16-10-25 14:05:41	202.45	60.8	27.2	98.4	139.85	140.79	99.33
16	2173	CHARGING	16-10-25 14:05:42	16-10-25 15:17:37	71.92	27.2	85.6	98.4	243.08	264.77	91.08
16	2175	CHARGING	16-10-25 15:17:39	16-10-25 15:43:13	25.56	85.6	100.0	98.4	59.94	56.6	94.44
16	2176	DISCHARGING	16-10-25 15:43:14	17-10-25 00:30:43	527.48	100.0	39.2	98.4	253.07	260.59	97.03
16	2177	CHARGING	17-10-25 00:30:44	17-10-25 01:43:47	73.06	39.2	100.0	98.4	253.07	273.57	91.9
16	2178	DISCHARGING	17-10-25 01:43:50	17-10-25 07:29:15	345.42	100.0	76.4	98.4	98.23	89.18	90.78
16	2179	DISCHARGING	17-10-25 07:35:11	17-10-25 09:25:55	110.75	75.2	51.6	98.4	98.23	100.48	97.71
16	2180	CHARGING	17-10-25 09:25:57	17-10-25 09:41:56	15.98	51.6	55.2	98.4	14.98	16.45	90.2
16	2181	DISCHARGING	17-10-25 09:41:57	17-10-25 09:42:31	0.57	55.2	55.2	98.4	0.0	0.08	nan
16	2182	CHARGING	17-10-25 09:42:33	17-10-25 09:43:00	0.44	55.2	55.2	98.4	0.0	0.06	nan
16	2183	DISCHARGING	17-10-25 09:43:01	17-10-25 13:11:10	208.15	55.2	20.4	98.4	144.85	138.51	95.62

Vehicle 16 – Session SoC Accuracy (Page 7/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
16	2184	CHARGING	17-10-25 13:11:11	17-10-25 14:55:02	103.85	20.4	100.0	98.4	331.32	350.68	94.16
16	2185	DISCHARGING	17-10-25 14:55:03	18-10-25 00:42:28	587.41	100.0	39.2	98.4	253.07	252.11	99.62
16	2186	CHARGING	18-10-25 00:42:29	18-10-25 01:54:13	71.74	39.2	100.0	98.4	253.07	270.06	93.28
16	2187	DISCHARGING	18-10-25 01:54:15	18-10-25 02:13:03	18.8	100.0	99.6	98.4	1.66	1.03	61.76
16	2188	DISCHARGING	18-10-25 02:29:34	18-10-25 06:56:57	267.38	99.6	82.4	98.4	71.59	62.04	86.66
16	2189	DISCHARGING	18-10-25 07:08:28	18-10-25 09:30:25	141.94	81.6	53.2	98.4	118.21	114.76	97.08
16	2190	DISCHARGING	18-10-25 10:07:58	18-10-25 13:23:40	195.7	53.2	19.2	98.4	141.52	135.51	95.76
16	2191	CHARGING	18-10-25 13:23:41	18-10-25 14:32:15	68.58	19.2	79.6	98.4	251.4	266.61	93.95
16	2193	CHARGING	18-10-25 14:33:08	18-10-25 14:37:08	4.0	79.6	80.0	98.4	1.66	7.03	-222.05
16	2194	DISCHARGING	18-10-25 14:37:09	18-10-25 14:37:50	0.7	80.0	80.0	98.4	0.0	2.36	nan
16	2195	CHARGING	18-10-25 14:37:51	18-10-25 15:08:39	30.79	80.0	100.0	98.4	83.25	81.78	98.24
16	2196	DISCHARGING	18-10-25 15:08:40	19-10-25 01:36:13	627.55	100.0	39.6	98.4	251.4	247.6	98.49
16	2197	CHARGING	19-10-25 01:36:16	19-10-25 02:50:07	73.86	39.6	100.0	98.4	251.4	268.85	93.06
16	2198	DISCHARGING	19-10-25 02:50:08	19-10-25 09:27:42	397.56	100.0	55.6	98.4	184.81	179.5	97.13
16	2199	DISCHARGING	19-10-25 10:05:38	19-10-25 13:12:01	186.38	55.6	29.2	98.4	109.88	107.04	97.41
16	2200	CHARGING	19-10-25 13:12:01	19-10-25 14:26:10	74.14	29.2	86.4	98.4	238.08	266.82	87.93
16	2202	CHARGING	19-10-25 14:27:02	19-10-25 14:50:19	23.28	86.4	100.0	98.4	56.61	46.36	81.9
16	2203	DISCHARGING	19-10-25 14:50:20	19-10-25 22:53:09	482.81	100.0	42.8	98.25	237.71	235.5	99.07
16	2205	DISCHARGING	20-10-25 04:51:51	20-10-25 05:16:44	24.89	42.8	42.0	98.0	3.32	2.35	70.83
16	2206	DISCHARGING	20-10-25 07:17:11	20-10-25 07:26:17	9.1	42.0	41.6	98.0	1.66	1.68	98.75
16	2207	DISCHARGING	20-10-25 07:36:16	20-10-25 07:51:59	15.72	41.2	40.8	98.0	1.66	2.08	74.86
16	2208	DISCHARGING	20-10-25 07:58:39	20-10-25 08:57:41	59.03	40.4	38.4	98.0	8.29	6.25	75.34
16	2209	DISCHARGING	20-10-25 09:02:42	20-10-25 09:42:14	39.53	38.4	37.2	98.0	4.97	3.37	67.83
16	2210	DISCHARGING	20-10-25 10:00:26	20-10-25 10:36:10	35.74	36.8	36.0	98.0	3.32	1.58	47.71
16	2211	DISCHARGING	20-10-25 10:45:52	20-10-25 11:26:10	40.29	35.6	35.6	98.0	0.0	0.2	nan
16	2215	DISCHARGING	21-10-25 01:57:22	21-10-25 02:17:24	20.03	35.6	35.6	98.0	0.0	0.66	nan
16	2216	DISCHARGING	21-10-25 02:28:32	21-10-25 02:33:10	4.62	35.6	35.6	98.0	0.0	0.01	nan
16	2217	CHARGING	21-10-25 02:33:11	21-10-25 03:48:13	75.03	35.6	98.8	98.0	261.99	281.83	92.43
16	2218	DISCHARGING	21-10-25 03:48:21	21-10-25 07:02:47	194.44	98.8	76.8	98.0	91.2	87.24	95.65
16	2219	DISCHARGING	21-10-25 07:09:20	21-10-25 08:53:00	103.68	75.2	53.6	98.0	89.54	83.91	93.71

Vehicle 16 – Session SoC Accuracy (Page 8/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
16	2220	CHARGING	21-10-25 08:53:02	21-10-25 09:22:46	29.75	53.6	58.0	98.0	18.24	19.43	93.45
16	2221	DISCHARGING	21-10-25 09:22:48	21-10-25 12:34:06	191.31	58.0	26.8	98.0	129.34	118.65	91.74
16	2222	CHARGING	21-10-25 12:34:07	21-10-25 13:42:41	68.56	26.8	85.6	98.0	243.75	264.65	91.42
16	2223	DISCHARGING	21-10-25 13:42:43	21-10-25 13:43:30	0.78	85.6	85.6	98.0	0.0	2.08	nan
16	2224	CHARGING	21-10-25 13:43:31	21-10-25 14:09:45	26.25	85.6	100.0	98.0	59.69	56.96	95.42
16	2225	DISCHARGING	21-10-25 14:09:46	21-10-25 23:00:22	530.59	100.0	38.4	98.0	255.36	254.69	99.74
16	2226	DISCHARGING	22-10-25 01:06:46	22-10-25 01:07:27	0.68	38.4	38.4	98.0	0.0	2.75	nan
16	2227	CHARGING	22-10-25 01:08:37	22-10-25 02:25:12	76.58	38.4	100.0	98.0	255.36	275.37	92.16
16	2228	DISCHARGING	22-10-25 02:27:52	22-10-25 06:57:55	270.05	100.0	80.0	98.0	82.91	76.18	91.89
16	2229	DISCHARGING	22-10-25 07:03:47	22-10-25 12:41:54	338.12	78.8	23.6	98.0	228.83	225.37	98.49
16	2230	CHARGING	22-10-25 12:42:45	22-10-25 14:21:34	98.82	23.6	100.0	98.0	316.71	337.05	93.58
16	2231	DISCHARGING	22-10-25 14:21:35	22-10-25 18:24:57	243.36	100.0	76.8	98.0	96.17	91.6	95.25
16	2232	DISCHARGING	22-10-25 18:47:29	22-10-25 22:15:23	207.91	76.8	40.8	98.0	149.23	151.66	98.38
16	2234	CHARGING	23-10-25 01:11:44	23-10-25 02:21:47	70.06	40.8	100.0	98.0	245.41	262.97	92.84
16	2239	DISCHARGING	23-10-25 03:48:40	23-10-25 07:03:26	194.77	99.6	79.6	98.0	82.91	81.15	97.87
16	2240	DISCHARGING	23-10-25 07:09:47	23-10-25 09:05:31	115.73	78.4	55.2	98.0	96.17	97.66	98.45
16	2241	DISCHARGING	23-10-25 09:35:46	23-10-25 13:05:05	209.32	55.2	21.6	98.0	139.28	140.52	99.12
16	2242	CHARGING	23-10-25 13:06:30	23-10-25 14:15:09	68.65	21.6	80.0	98.0	242.09	267.71	89.42
16	2244	CHARGING	23-10-25 14:16:02	23-10-25 14:45:46	29.73	80.0	100.0	98.0	82.91	78.83	95.09
16	2245	DISCHARGING	23-10-25 14:45:47	24-10-25 01:01:13	615.44	100.0	40.8	98.0	245.41	251.37	97.57
16	2246	DISCHARGING	24-10-25 01:09:23	24-10-25 01:11:33	2.16	40.8	40.8	98.0	0.0	0.07	nan
16	2247	CHARGING	24-10-25 01:12:57	24-10-25 02:25:59	73.02	40.8	100.0	98.0	245.41	265.3	91.89
16	2249	DISCHARGING	24-10-25 02:33:30	24-10-25 09:02:59	389.48	100.0	55.2	98.0	185.71	183.25	98.67
16	2250	DISCHARGING	24-10-25 09:37:55	24-10-25 12:44:13	186.3	55.2	21.6	98.0	139.28	137.38	98.63
16	2251	CHARGING	24-10-25 12:45:42	24-10-25 13:59:02	73.33	21.6	80.0	98.0	242.09	267.97	89.31
16	2253	CHARGING	24-10-25 14:00:10	24-10-25 14:27:46	27.61	80.0	100.0	98.0	82.91	77.8	93.84
16	2254	DISCHARGING	24-10-25 14:27:47	25-10-25 00:15:21	587.56	100.0	38.8	98.0	253.7	253.5	99.92
16	2256	CHARGING	25-10-25 01:06:26	25-10-25 02:28:35	82.15	38.8	100.0	98.0	253.7	272.5	92.59
16	2257	DISCHARGING	25-10-25 02:28:36	25-10-25 02:41:30	12.9	100.0	99.6	98.0	1.66	0.45	27.16
16	2258	DISCHARGING	25-10-25 03:01:17	25-10-25 13:31:39	630.36	99.6	18.4	98.0	336.61	330.74	98.26

Vehicle 16 – Session SoC Accuracy (Page 9/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
16	2259	CHARGING	25-10-25 13:33:51	25-10-25 15:20:59	107.13	18.4	100.0	98.0	338.26	361.5	93.13
16	2260	DISCHARGING	25-10-25 15:21:00	25-10-25 22:28:23	427.39	100.0	42.4	98.0	238.78	239.45	99.72
16	2262	CHARGING	26-10-25 01:04:56	26-10-25 02:09:53	64.95	42.4	91.2	98.0	202.3	229.4	86.6
16	2266	CHARGING	26-10-25 02:17:39	26-10-25 02:18:08	0.48	91.2	91.2	98.0	0.0	0.82	nan
16	2267	DISCHARGING	26-10-25 02:18:09	26-10-25 02:29:14	11.08	91.2	90.8	98.0	1.66	0.27	16.34
16	2268	DISCHARGING	26-10-25 03:15:28	26-10-25 07:04:14	228.77	90.8	70.8	98.0	82.91	79.83	96.29
16	2269	DISCHARGING	26-10-25 07:09:23	26-10-25 09:25:53	136.51	70.0	46.8	98.0	96.17	100.41	95.6
16	2270	CHARGING	26-10-25 09:25:54	26-10-25 10:08:12	42.29	46.8	54.0	98.0	29.85	29.39	98.46
16	2273	DISCHARGING	26-10-25 10:08:43	26-10-25 13:44:47	216.07	54.0	20.0	98.0	140.94	140.69	99.82
16	2274	CHARGING	26-10-25 13:46:01	26-10-25 14:54:37	68.6	20.0	80.0	98.0	248.72	266.7	92.77
16	2276	CHARGING	26-10-25 14:55:27	26-10-25 15:24:00	28.55	80.0	100.0	98.0	82.91	74.96	90.41
16	2277	DISCHARGING	26-10-25 15:24:01	27-10-25 01:14:01	589.99	100.0	44.8	98.0	228.83	222.62	97.29
16	2278	CHARGING	27-10-25 01:15:08	27-10-25 02:23:53	68.75	44.8	100.0	98.0	228.83	245.51	92.71
16	2279	DISCHARGING	27-10-25 02:23:54	27-10-25 12:58:04	634.17	100.0	21.2	98.0	326.66	317.69	97.25
16	2280	CHARGING	27-10-25 12:58:35	27-10-25 14:37:52	99.28	21.2	100.0	98.0	326.66	347.06	93.76
16	2283	DISCHARGING	27-10-25 14:38:51	28-10-25 00:42:37	603.76	100.0	43.6	98.0	233.8	236.68	98.77
16	2284	CHARGING	28-10-25 00:43:36	28-10-25 01:35:36	52.0	43.6	84.4	98.0	169.13	182.41	92.15
16	2285	CHARGING	28-10-25 01:45:37	28-10-25 02:14:01	28.4	84.4	100.0	98.0	64.67	69.73	92.18
16	2287	DISCHARGING	28-10-25 03:08:48	28-10-25 05:34:01	145.22	100.0	90.0	98.0	41.45	40.2	96.96
16	2289	DISCHARGING	28-10-25 06:15:58	28-10-25 06:39:28	23.5	90.0	89.6	98.0	1.66	3.85	-32.12
16	2290	DISCHARGING	28-10-25 08:16:31	28-10-25 08:22:52	6.35	89.6	89.2	98.0	1.66	10.18	-413.99
16	2291	DISCHARGING	28-10-25 08:51:29	28-10-25 08:53:47	2.3	89.2	89.2	98.0	0.0	0.78	nan
16	2292	DISCHARGING	28-10-25 09:29:09	28-10-25 09:30:59	1.83	89.2	89.2	98.0	0.0	0.05	nan
16	2294	DISCHARGING	28-10-25 12:31:17	29-10-25 00:54:59	743.7	89.2	77.6	98.0	48.09	38.78	80.64
16	2295	CHARGING	29-10-25 00:56:04	29-10-25 01:27:12	31.13	77.6	100.0	98.0	92.86	94.7	98.01
16	2297	DISCHARGING	29-10-25 02:54:30	29-10-25 09:04:33	370.05	100.0	54.8	98.0	187.37	184.95	98.71
16	2298	DISCHARGING	29-10-25 09:41:19	29-10-25 12:27:07	165.79	54.8	22.8	98.0	132.65	132.17	99.64
16	2299	CHARGING	29-10-25 12:29:13	29-10-25 13:37:46	68.56	22.8	80.0	98.0	237.12	265.05	88.22
16	2301	CHARGING	29-10-25 13:38:43	29-10-25 14:05:56	27.21	80.0	100.0	98.0	82.91	76.65	92.46
16	2302	DISCHARGING	29-10-25 14:05:57	30-10-25 00:59:36	653.66	100.0	41.6	98.0	242.09	242.92	99.66

Vehicle 16 — Session SoC Accuracy (Page 10/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
16	1889	DISCHARGING	30-09-25 18:30:00	01-10-25 00:26:14	356.22	76.8	38.0	98.8	162.16	162.15	100.0
16	2303	CHARGING	30-10-25 01:00:34	30-10-25 02:10:14	69.67	41.6	100.0	98.0	242.09	256.87	93.9
16	2305	DISCHARGING	30-10-25 02:52:41	30-10-25 09:07:36	374.91	100.0	55.6	98.0	184.06	179.34	97.44
16	2306	DISCHARGING	30-10-25 09:38:59	30-10-25 12:47:37	188.63	55.6	21.2	98.0	142.6	139.04	97.51
16	2307	CHARGING	30-10-25 12:47:38	30-10-25 13:24:44	37.09	21.2	35.6	98.0	59.69	62.15	95.88
16	2309	DISCHARGING	30-10-25 13:45:00	30-10-25 13:46:13	1.23	35.6	35.6	98.0	0.0	0.06	nan
16	2310	CHARGING	30-10-25 13:46:16	30-10-25 15:07:47	81.53	35.6	100.0	98.0	266.96	285.78	92.95
16	2311	DISCHARGING	30-10-25 15:07:48	30-10-25 22:17:45	429.95	100.0	38.8	98.0	253.7	251.72	99.22
16	2312	DISCHARGING	31-10-25 01:03:58	31-10-25 01:04:27	0.47	38.8	38.8	98.0	0.0	0.0	nan
16	2313	CHARGING	31-10-25 01:06:01	31-10-25 02:22:08	76.13	38.8	100.0	98.0	253.7	270.91	93.22
16	2314	DISCHARGING	31-10-25 02:22:11	31-10-25 13:15:07	652.92	100.0	23.2	98.0	318.37	303.51	95.33
16	2315	DISCHARGING	31-10-25 13:38:57	31-10-25 13:40:20	1.38	23.2	23.2	98.0	0.0	4.32	nan
16	2316	CHARGING	31-10-25 13:41:04	31-10-25 14:49:41	68.6	23.2	80.0	98.0	235.46	265.26	87.34
16	2318	CHARGING	31-10-25 14:50:20	31-10-25 15:25:06	34.77	80.0	100.0	98.0	82.91	73.27	88.37
16	2319	DISCHARGING	31-10-25 15:25:07	31-10-25 18:29:59	184.86	100.0	77.6	98.0	92.86	94.59	98.13

Vehicle 18 – Session SoC Accuracy (Page 1/6)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
18	2329	DISCHARGING	01-10-25 00:29:18	01-10-25 02:35:57	126.65	99.6	89.2	99.6	43.82	36.35	82.96
18	2330	DISCHARGING	01-10-25 03:02:44	01-10-25 03:48:17	45.56	87.6	77.6	99.6	42.13	41.5	98.51
18	2331	DISCHARGING	01-10-25 03:54:41	01-10-25 05:21:28	86.78	76.8	61.6	99.6	64.04	66.95	95.45
18	2332	DISCHARGING	01-10-25 05:50:01	01-10-25 08:45:08	175.12	61.6	28.8	99.6	138.19	130.24	94.25
18	2333	CHARGING	01-10-25 08:45:09	01-10-25 08:50:56	5.77	28.8	30.8	99.6	8.43	8.68	97.01
18	2335	CHARGING	01-10-25 08:51:19	01-10-25 08:54:08	2.81	30.8	31.6	99.6	3.37	4.5	66.36
18	2337	CHARGING	01-10-25 08:55:08	01-10-25 09:36:35	41.44	31.6	40.0	99.6	35.39	37.29	94.63
18	2339	CHARGING	01-10-25 09:36:37	01-10-25 10:07:17	30.66	40.0	65.2	99.6	106.17	97.45	91.79
18	2340	DISCHARGING	01-10-25 10:07:18	01-10-25 10:08:06	0.8	65.2	65.2	99.6	0.0	0.01	nan
18	2341	CHARGING	01-10-25 10:08:07	01-10-25 10:38:37	30.5	65.2	86.8	99.6	91.0	112.75	76.1
18	2342	DISCHARGING	01-10-25 10:38:38	01-10-25 10:39:48	1.18	86.8	86.8	99.6	0.0	0.0	nan
18	2343	CHARGING	01-10-25 10:39:49	01-10-25 10:53:15	13.42	86.8	98.0	99.6	47.19	40.44	85.7
18	2344	CHARGING	01-10-25 10:59:33	01-10-25 10:59:37	0.07	98.0	98.0	99.6	0.0	0.8	nan
18	2345	DISCHARGING	01-10-25 10:59:38	01-10-25 14:04:58	185.33	100.0	82.4	99.6	74.15	72.14	97.28
18	2346	DISCHARGING	01-10-25 14:16:39	01-10-25 14:47:40	31.03	80.0	75.2	99.6	20.22	22.12	90.63
18	2347	DISCHARGING	01-10-25 14:55:55	01-10-25 15:48:08	52.23	75.2	67.2	99.6	33.7	28.38	84.2
18	2348	DISCHARGING	01-10-25 16:01:01	01-10-25 16:28:25	27.41	64.4	59.2	99.6	21.91	20.17	92.05
18	2349	DISCHARGING	01-10-25 16:33:27	01-10-25 18:42:57	129.49	58.4	41.2	99.6	72.46	68.69	94.8
18	2350	DISCHARGING	01-10-25 18:51:11	01-10-25 20:31:08	99.95	40.4	37.2	99.6	13.48	12.73	94.4
18	2351	CHARGING	01-10-25 20:31:09	01-10-25 21:14:22	43.21	37.2	62.4	99.6	106.17	114.2	92.44
18	2353	CHARGING	01-10-25 21:14:24	01-10-25 22:50:07	95.72	62.4	100.0	99.6	158.41	165.29	95.66
18	2357	DISCHARGING	01-10-25 23:09:50	02-10-25 01:16:34	126.75	100.0	92.4	99.6	32.02	25.18	78.64
18	2358	DISCHARGING	02-10-25 01:29:27	02-10-25 02:20:02	50.59	91.2	88.4	99.6	11.8	10.55	89.44
18	2359	DISCHARGING	02-10-25 02:29:55	02-10-25 04:45:45	135.84	86.0	64.4	99.6	91.0	96.29	94.19
18	2360	DISCHARGING	02-10-25 04:57:15	02-10-25 07:04:01	126.77	62.0	44.0	99.6	75.83	73.8	97.32
18	2361	DISCHARGING	02-10-25 07:09:41	02-10-25 07:30:44	21.05	42.4	38.4	99.6	16.85	17.23	97.73
18	2362	DISCHARGING	02-10-25 07:37:03	02-10-25 08:53:24	76.35	37.2	23.2	99.6	58.98	51.54	87.39
18	2363	CHARGING	02-10-25 08:53:25	02-10-25 09:25:15	31.83	23.2	48.8	99.6	107.86	113.46	94.8
18	2365	CHARGING	02-10-25 09:25:17	02-10-25 10:21:16	55.97	48.8	91.2	99.6	178.64	202.76	86.5
18	2366	CHARGING	02-10-25 10:29:28	02-10-25 10:39:14	9.77	98.0	100.0	99.6	8.43	6.97	82.67

Vehicle 18 – Session SoC Accuracy (Page 2/6)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
18	2367	DISCHARGING	02-10-25 10:39:15	02-10-25 13:32:11	172.93	100.0	86.4	99.6	57.3	53.1	92.68
18	2368	DISCHARGING	02-10-25 13:42:42	02-10-25 15:40:19	117.62	84.4	70.0	99.6	60.67	60.42	99.59
18	2369	DISCHARGING	02-10-25 15:54:58	02-10-25 16:49:53	54.92	67.2	57.6	99.6	40.45	40.42	99.94
18	2370	DISCHARGING	02-10-25 17:10:10	02-10-25 18:06:28	56.3	53.6	46.0	99.6	32.02	28.37	88.61
18	2371	DISCHARGING	02-10-25 18:21:49	02-10-25 18:33:06	11.28	45.2	44.0	99.6	5.06	5.72	86.91
18	2372	DISCHARGING	02-10-25 18:41:11	02-10-25 20:04:00	82.83	42.8	39.6	99.6	13.48	10.13	75.16
18	2373	CHARGING	02-10-25 20:04:47	02-10-25 20:21:53	17.09	39.6	49.6	99.6	42.13	43.54	96.64
18	2374	CHARGING	02-10-25 20:30:58	02-10-25 21:02:39	31.68	49.6	74.4	99.6	104.48	98.01	93.8
18	2376	CHARGING	02-10-25 21:02:41	02-10-25 22:41:13	98.53	74.4	98.8	99.6	102.8	112.68	90.38
18	2377	DISCHARGING	02-10-25 22:41:14	03-10-25 01:31:44	170.49	98.8	92.8	99.6	25.28	22.31	88.26
18	2378	DISCHARGING	03-10-25 01:40:00	03-10-25 02:22:50	42.82	92.0	89.6	99.6	10.11	8.32	82.28
18	2379	DISCHARGING	03-10-25 02:34:05	03-10-25 04:09:18	95.22	88.4	70.4	99.6	75.83	74.89	98.75
18	2380	DISCHARGING	03-10-25 04:44:20	03-10-25 05:09:28	25.13	63.2	58.8	99.6	18.54	20.27	90.63
18	2381	DISCHARGING	03-10-25 05:30:55	03-10-25 06:40:15	69.34	58.8	45.2	99.6	57.3	58.08	98.63
18	2382	DISCHARGING	03-10-25 06:49:55	03-10-25 09:27:14	157.32	43.2	22.0	99.6	89.32	86.97	97.37
18	2383	CHARGING	03-10-25 09:27:15	03-10-25 09:59:45	32.5	22.0	47.6	99.6	107.86	112.66	95.55
18	2385	CHARGING	03-10-25 09:59:47	03-10-25 10:04:02	4.26	47.6	49.2	99.6	6.74	7.47	89.23
18	2386	DISCHARGING	03-10-25 10:04:04	03-10-25 10:04:50	0.78	49.2	49.2	99.6	0.0	0.0	nan
18	2387	CHARGING	03-10-25 10:04:51	03-10-25 10:10:08	5.28	49.2	51.2	99.6	8.43	8.99	93.27
18	2388	DISCHARGING	03-10-25 10:10:10	03-10-25 10:10:58	0.79	51.2	51.2	99.6	0.0	0.05	nan
18	2389	CHARGING	03-10-25 10:10:58	03-10-25 10:40:58	30.0	51.2	76.0	99.6	104.48	112.02	92.78
18	2391	CHARGING	03-10-25 10:41:51	03-10-25 11:14:13	32.37	76.0	98.8	99.6	96.06	103.84	91.9
18	2392	DISCHARGING	03-10-25 11:17:31	03-10-25 12:29:35	72.06	98.8	93.2	99.6	23.59	21.84	92.57
18	2393	DISCHARGING	03-10-25 12:34:51	03-10-25 12:47:12	12.35	92.8	91.6	99.6	5.06	8.6	29.99
18	2394	DISCHARGING	03-10-25 13:03:39	03-10-25 15:30:31	146.87	90.0	71.6	99.6	77.52	83.6	92.16
18	2395	DISCHARGING	03-10-25 15:37:59	03-10-25 19:36:40	238.68	69.6	35.6	99.4	142.96	146.3	97.66
18	2396	DISCHARGING	03-10-25 19:43:15	03-10-25 20:09:32	26.29	35.6	35.2	99.2	1.68	0.11	6.51
18	2397	CHARGING	03-10-25 20:09:33	03-10-25 20:44:26	34.88	35.2	60.8	99.2	107.42	115.78	92.22
18	2399	CHARGING	03-10-25 20:44:28	03-10-25 22:35:30	111.03	60.8	100.0	99.2	164.49	171.51	95.73
18	2401	DISCHARGING	03-10-25 23:09:34	04-10-25 02:34:29	204.91	100.0	87.2	99.2	53.71	49.52	92.2

Vehicle 18 – Session SoC Accuracy (Page 3/6)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
18	2402	DISCHARGING	04-10-25 02:50:39	04-10-25 05:02:20	131.67	85.6	63.2	99.2	93.99	97.4	96.38
18	2403	DISCHARGING	04-10-25 05:09:40	04-10-25 06:36:49	87.15	61.6	52.8	99.2	36.93	38.74	95.08
18	2404	DISCHARGING	04-10-25 06:45:34	04-10-25 09:23:53	158.32	50.8	22.8	99.2	117.49	107.79	91.74
18	2405	DISCHARGING	04-10-25 09:31:54	04-10-25 11:35:02	123.14	22.4	19.2	99.2	13.43	9.13	67.97
18	2406	CHARGING	04-10-25 11:35:03	04-10-25 11:36:33	1.5	19.2	19.2	99.2	0.0	0.18	nan
18	2408	CHARGING	04-10-25 11:36:35	04-10-25 11:39:13	2.63	19.2	20.0	99.2	3.36	4.26	73.08
18	2410	CHARGING	04-10-25 11:41:35	04-10-25 11:43:59	2.4	20.0	20.8	99.2	3.36	3.92	83.07
18	2412	CHARGING	04-10-25 11:45:03	04-10-25 12:20:43	35.66	20.8	46.8	99.2	109.1	115.2	94.4
18	2414	CHARGING	04-10-25 12:20:45	04-10-25 12:52:24	31.66	46.8	72.8	99.2	109.1	115.48	94.15
18	2416	CHARGING	04-10-25 12:52:26	04-10-25 13:27:32	35.09	72.8	97.6	99.2	104.06	113.42	91.01
18	2417	DISCHARGING	04-10-25 13:27:32	04-10-25 14:39:27	71.9	97.6	94.8	99.2	11.75	9.53	81.11
18	2418	DISCHARGING	04-10-25 14:52:37	04-10-25 15:17:07	24.5	94.0	92.0	99.2	8.39	11.74	60.07
18	2419	DISCHARGING	04-10-25 15:24:11	04-10-25 18:55:33	211.36	92.0	64.0	99.2	117.49	118.53	99.12
18	2420	DISCHARGING	04-10-25 19:05:43	04-10-25 21:41:13	155.49	62.0	40.8	99.2	88.96	91.78	96.82
18	2421	CHARGING	04-10-25 21:41:16	04-10-25 21:45:29	4.22	40.8	40.8	99.2	0.0	0.64	nan
18	2423	CHARGING	04-10-25 21:49:03	04-10-25 22:20:14	31.19	40.4	66.4	99.2	109.1	116.43	93.29
18	2424	CHARGING	04-10-25 22:31:02	04-10-25 23:23:04	52.05	66.4	100.0	99.2	140.99	151.44	92.59
18	2428	DISCHARGING	04-10-25 23:33:19	04-10-25 23:59:11	25.87	100.0	98.8	99.2	5.04	4.33	86.06
18	2429	DISCHARGING	05-10-25 00:04:12	05-10-25 00:35:20	31.15	98.8	95.6	99.2	13.43	10.76	80.1
18	2430	DISCHARGING	05-10-25 00:45:01	05-10-25 02:01:38	76.62	94.8	90.8	99.2	16.78	17.7	94.56
18	2432	DISCHARGING	05-10-25 02:21:42	05-10-25 08:48:40	386.97	90.8	81.2	99.2	40.28	17.58	43.64
18	2433	DISCHARGING	05-10-25 08:55:16	05-10-25 09:12:04	16.79	81.2	80.8	99.2	1.68	0.58	34.61
18	2434	DISCHARGING	05-10-25 09:18:22	05-10-25 09:42:44	24.36	80.4	80.0	99.2	1.68	0.23	13.82
18	2435	DISCHARGING	06-10-25 04:04:49	06-10-25 15:59:16	714.45	80.0	70.8	99.2	38.6	8.97	23.23
18	2437	DISCHARGING	06-10-25 17:02:49	06-10-25 17:32:33	29.73	68.4	65.6	99.2	11.75	14.42	77.26
18	2438	DISCHARGING	06-10-25 17:49:01	06-10-25 19:48:56	119.92	63.6	61.6	99.2	8.39	3.89	46.35
18	2439	CHARGING	06-10-25 19:48:57	06-10-25 20:10:34	21.61	61.6	62.4	99.2	3.36	4.66	61.02
18	2441	CHARGING	06-10-25 20:12:09	06-10-25 23:35:42	203.55	62.4	100.0	99.2	157.78	146.96	93.15
18	2446	DISCHARGING	06-10-25 23:44:56	07-10-25 01:13:50	88.89	100.0	93.6	99.2	26.86	24.03	89.47
18	2447	DISCHARGING	07-10-25 01:38:24	07-10-25 04:24:02	165.63	91.6	73.2	99.2	77.21	77.47	99.66

Vehicle 18 – Session SoC Accuracy (Page 4/6)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
18	2448	DISCHARGING	07-10-25 04:38:50	07-10-25 04:57:59	19.15	70.4	66.8	99.2	15.11	16.59	90.2
18	2449	DISCHARGING	07-10-25 05:05:59	07-10-25 05:11:27	5.48	65.2	64.4	99.2	3.36	0.55	16.27
18	2450	DISCHARGING	07-10-25 05:51:45	07-10-25 07:25:48	94.05	64.4	45.6	99.2	78.89	80.23	98.3
18	2451	DISCHARGING	07-10-25 07:37:20	07-10-25 08:34:37	57.28	42.4	35.2	99.2	30.21	28.42	94.07
18	2452	CHARGING	07-10-25 08:36:58	07-10-25 09:05:45	28.78	35.2	45.6	99.2	43.64	44.91	97.09
18	2454	CHARGING	07-10-25 09:05:47	07-10-25 09:38:40	32.89	45.6	70.8	99.2	105.74	112.72	93.4
18	2460	CHARGING	07-10-25 09:40:27	07-10-25 09:41:24	0.95	70.8	70.8	99.2	0.0	1.8	nan
18	2462	CHARGING	07-10-25 09:41:26	07-10-25 10:16:17	34.84	70.8	90.0	99.2	80.57	113.56	59.04
18	2464	CHARGING	07-10-25 10:16:19	07-10-25 10:30:06	13.78	90.0	100.0	99.2	41.96	20.78	49.53
18	2465	DISCHARGING	07-10-25 10:30:06	07-10-25 13:05:46	155.65	100.0	89.6	99.2	43.64	41.65	95.44
18	2466	DISCHARGING	07-10-25 13:15:24	07-10-25 17:05:41	230.29	88.8	57.6	99.2	130.92	131.4	99.64
18	2467	DISCHARGING	07-10-25 17:23:49	07-10-25 19:50:17	146.46	54.8	45.2	99.2	40.28	38.04	94.43
18	2468	CHARGING	07-10-25 19:50:49	07-10-25 23:38:27	227.63	45.2	82.8	99.2	157.78	167.68	93.73
18	2470	CHARGING	07-10-25 23:39:48	07-10-25 23:44:13	4.42	82.8	82.8	99.2	0.0	5.74	nan
18	2472	CHARGING	07-10-25 23:44:15	07-10-25 23:46:17	2.03	82.8	82.8	99.2	0.0	2.32	nan
18	2474	CHARGING	07-10-25 23:46:19	08-10-25 00:13:08	26.82	82.8	98.8	99.2	67.14	76.65	85.83
18	2475	DISCHARGING	08-10-25 00:13:11	08-10-25 01:13:11	60.02	98.8	94.0	99.2	20.14	18.76	93.15
18	2476	DISCHARGING	08-10-25 01:19:29	08-10-25 01:21:03	1.58	93.6	93.6	99.2	0.0	0.04	nan
18	2477	DISCHARGING	08-10-25 01:27:23	08-10-25 02:53:54	86.5	93.2	86.8	99.2	26.86	25.13	93.58
18	2478	DISCHARGING	08-10-25 03:09:14	08-10-25 05:10:14	121.01	83.6	63.2	99.2	85.6	84.42	98.62
18	2479	DISCHARGING	08-10-25 05:44:30	08-10-25 08:29:06	164.61	63.2	34.4	99.2	120.85	113.99	94.33
18	2480	CHARGING	08-10-25 08:29:07	08-10-25 08:34:30	5.38	34.4	36.0	99.2	6.71	8.86	68.1
18	2482	CHARGING	08-10-25 08:34:32	08-10-25 08:39:19	4.78	36.0	38.0	99.2	8.39	8.96	93.21
18	2484	CHARGING	08-10-25 08:54:47	08-10-25 08:58:12	3.41	38.0	39.2	99.2	5.04	5.58	89.13
18	2486	CHARGING	08-10-25 08:58:58	08-10-25 09:30:41	31.72	39.2	64.8	99.2	107.42	114.88	93.06
18	2488	CHARGING	08-10-25 09:30:43	08-10-25 10:02:29	31.77	64.8	86.0	99.2	88.96	115.35	70.33
18	2490	CHARGING	08-10-25 10:02:32	08-10-25 10:23:45	21.23	86.0	100.0	99.2	58.75	44.5	75.75
18	2491	DISCHARGING	08-10-25 10:23:46	08-10-25 15:16:08	292.36	100.0	75.2	99.2	104.06	99.23	95.35
18	2492	DISCHARGING	08-10-25 15:28:51	08-10-25 15:49:47	20.93	73.2	70.0	99.2	13.43	13.82	97.09
18	2493	DISCHARGING	08-10-25 15:58:05	08-10-25 16:18:53	20.8	68.4	65.2	99.2	13.43	17.03	73.16

Vehicle 18 – Session SoC Accuracy (Page 5/6)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
18	2494	DISCHARGING	08-10-25 16:27:08	08-10-25 17:36:35	69.44	64.4	52.8	99.2	48.68	47.6	97.79
18	2495	DISCHARGING	08-10-25 17:44:51	08-10-25 17:56:46	11.91	52.0	51.6	99.2	1.68	2.55	47.93
18	2496	DISCHARGING	08-10-25 18:06:42	08-10-25 18:38:39	31.95	51.2	47.6	99.2	15.11	16.51	90.7
18	2497	DISCHARGING	08-10-25 18:46:56	08-10-25 20:01:47	74.85	46.4	43.6	99.2	11.75	7.72	65.75
18	2499	DISCHARGING	08-10-25 21:08:20	08-10-25 22:05:37	57.28	42.8	42.4	99.2	1.68	0.06	3.29
18	2500	CHARGING	08-10-25 22:05:38	08-10-25 23:31:08	85.5	42.4	100.0	99.2	241.7	258.43	93.08
18	2501	DISCHARGING	08-10-25 23:31:09	08-10-25 23:43:29	12.34	100.0	100.0	99.2	0.0	0.86	nan
18	2502	DISCHARGING	09-10-25 02:45:29	09-10-25 02:56:46	11.29	100.0	100.0	99.2	0.0	0.69	nan
18	2503	DISCHARGING	09-10-25 07:36:34	09-10-25 09:48:07	131.54	100.0	96.8	99.2	13.43	1.84	13.71
18	2504	DISCHARGING	09-10-25 10:26:12	09-10-25 10:59:42	33.51	96.8	96.0	99.2	3.36	0.57	17.02
18	2505	DISCHARGING	09-10-25 11:34:11	09-10-25 14:09:11	154.99	96.0	94.4	99.2	6.71	0.57	8.46
18	2506	DISCHARGING	11-10-25 12:45:51	11-10-25 14:11:48	85.94	94.4	92.8	99.2	6.71	1.62	24.21
18	2508	DISCHARGING	13-10-25 09:46:59	13-10-25 12:17:40	150.68	92.8	84.8	99.2	33.57	33.29	99.16
18	2509	DISCHARGING	13-10-25 12:23:57	13-10-25 12:33:44	9.78	84.4	84.0	99.2	1.68	1.02	60.85
18	2510	DISCHARGING	13-10-25 12:46:34	13-10-25 13:54:16	67.7	83.6	81.2	99.2	10.07	9.36	92.9
18	2512	DISCHARGING	14-10-25 04:52:56	14-10-25 05:04:02	11.11	81.2	80.8	99.2	1.68	0.19	11.39
18	2513	DISCHARGING	14-10-25 06:12:53	14-10-25 06:15:10	2.28	80.8	80.8	99.2	0.0	0.04	nan
18	2514	DISCHARGING	14-10-25 06:57:15	14-10-25 06:58:32	1.29	80.8	80.8	99.2	0.0	0.03	nan
18	2515	DISCHARGING	14-10-25 08:27:15	14-10-25 08:29:05	1.84	80.8	80.8	99.2	0.0	0.03	nan
18	2517	DISCHARGING	14-10-25 10:33:57	14-10-25 10:37:06	3.15	80.8	80.8	99.2	0.0	0.02	nan
18	2518	DISCHARGING	14-10-25 14:43:02	14-10-25 18:15:12	212.17	80.8	72.0	99.2	36.93	35.83	97.02
18	2519	DISCHARGING	14-10-25 18:45:01	14-10-25 18:45:26	0.42	72.0	72.0	99.2	0.0	0.96	nan
18	2520	DISCHARGING	22-10-25 11:53:43	22-10-25 14:01:22	127.64	72.0	70.8	99.2	5.04	3.34	66.31
18	2521	DISCHARGING	23-10-25 01:58:15	23-10-25 01:59:23	1.13	70.8	70.8	99.2	0.0	0.0	nan
18	2525	DISCHARGING	26-10-25 13:48:11	26-10-25 15:05:24	77.22	70.8	68.8	99.2	8.39	2.17	25.86
18	2527	DISCHARGING	28-10-25 12:32:05	28-10-25 12:39:36	7.52	68.8	68.8	99.2	0.0	0.02	nan
18	2528	DISCHARGING	28-10-25 13:58:38	28-10-25 14:02:08	3.5	68.8	68.8	99.2	0.0	0.03	nan
18	2320	DISCHARGING	30-09-25 18:30:02	30-09-25 20:11:36	101.56	46.4	40.4	99.6	25.28	19.76	78.17
18	2321	CHARGING	30-09-25 20:11:37	30-09-25 21:01:52	50.25	40.4	66.4	99.6	109.54	118.81	91.53
18	2323	CHARGING	30-09-25 21:02:20	30-09-25 21:39:44	37.41	66.4	94.8	99.6	119.65	113.61	94.95

Vehicle 18 — Session SoC Accuracy (Page 6/6)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
18	2324	DISCHARGING	30-09-25 21:39:46	30-09-25 23:10:06	90.34	94.8	93.6	99.6	5.06	0.84	16.51
18	2327	CHARGING	30-09-25 23:55:31	01-10-25 00:18:15	22.73	93.2	100.0	99.6	28.65	42.61	51.27
18	2531	DISCHARGING	30-10-25 07:14:05	30-10-25 07:14:45	0.65	68.4	68.4	99.2	0.0	0.01	nan
18	2532	DISCHARGING	30-10-25 07:22:40	30-10-25 08:49:40	87.0	68.0	66.8	99.2	5.04	1.7	33.87

Vehicle 19 – Session SoC Accuracy (Page 1/6)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
19	2549	DISCHARGING	01-10-25 02:41:41	01-10-25 03:06:03	24.36	77.6	73.6	99.6	16.85	18.48	90.32
19	2550	DISCHARGING	01-10-25 03:24:14	01-10-25 03:33:22	9.14	69.6	67.2	99.6	10.11	9.98	98.71
19	2551	DISCHARGING	01-10-25 03:40:00	01-10-25 04:18:07	38.11	66.0	59.6	99.6	26.96	31.1	84.65
19	2552	DISCHARGING	01-10-25 04:32:42	01-10-25 05:02:31	29.82	57.2	50.8	99.6	26.96	27.94	96.4
19	2553	DISCHARGING	01-10-25 05:21:14	01-10-25 08:18:56	177.71	48.0	30.8	99.6	72.46	63.73	87.95
19	2554	CHARGING	01-10-25 08:18:58	01-10-25 08:49:07	30.15	30.8	56.8	99.6	109.54	115.37	94.68
19	2556	CHARGING	01-10-25 08:49:09	01-10-25 09:20:02	30.88	56.8	81.2	99.6	102.8	111.02	92.0
19	2558	CHARGING	01-10-25 09:20:04	01-10-25 09:48:27	28.39	81.2	100.0	99.6	79.21	71.88	90.75
19	2559	DISCHARGING	01-10-25 09:48:28	01-10-25 10:40:34	52.1	100.0	96.0	99.6	16.85	14.75	87.54
19	2560	DISCHARGING	01-10-25 10:58:27	01-10-25 11:55:18	56.84	94.8	88.8	99.6	25.28	27.23	92.26
19	2561	DISCHARGING	01-10-25 12:00:22	01-10-25 13:00:13	59.84	88.4	85.2	99.6	13.48	13.28	98.51
19	2562	DISCHARGING	01-10-25 13:11:03	01-10-25 13:47:30	36.44	84.0	81.6	99.6	10.11	12.2	79.29
19	2563	DISCHARGING	01-10-25 14:06:02	01-10-25 14:42:37	36.59	80.4	76.4	99.6	16.85	16.55	98.22
19	2564	DISCHARGING	01-10-25 14:47:58	01-10-25 15:13:04	25.1	76.4	70.4	99.6	25.28	24.53	97.03
19	2565	DISCHARGING	01-10-25 15:24:56	01-10-25 15:47:08	22.2	67.6	64.4	99.6	13.48	14.32	93.81
19	2567	DISCHARGING	01-10-25 16:01:45	01-10-25 16:23:49	22.07	61.6	56.4	99.6	21.91	26.69	78.17
19	2568	DISCHARGING	01-10-25 16:36:43	01-10-25 17:01:41	24.97	53.2	49.2	99.6	16.85	20.53	78.19
19	2569	DISCHARGING	01-10-25 17:42:58	01-10-25 20:35:37	172.65	49.2	16.4	99.6	138.19	128.19	92.77
19	2570	DISCHARGING	01-10-25 21:30:56	01-10-25 21:35:32	4.59	16.4	16.0	99.6	1.68	0.13	7.72
19	2571	CHARGING	01-10-25 21:35:33	01-10-25 21:35:57	0.41	16.0	16.0	99.6	0.0	0.02	nan
19	2573	CHARGING	01-10-25 21:36:26	01-10-25 22:08:18	31.87	16.0	42.0	99.6	109.54	117.31	92.91
19	2575	CHARGING	01-10-25 22:08:21	01-10-25 22:40:05	31.73	42.0	68.0	99.6	109.54	108.06	98.65
19	2577	CHARGING	01-10-25 22:40:07	01-10-25 22:42:22	2.25	68.0	68.8	99.6	3.37	3.99	81.68
19	2578	CHARGING	01-10-25 22:53:57	01-10-25 23:13:31	19.57	78.8	89.6	99.6	45.5	70.35	45.39
19	2580	CHARGING	01-10-25 23:14:13	01-10-25 23:25:49	11.6	89.6	100.0	99.6	43.82	17.02	38.85
19	2581	DISCHARGING	01-10-25 23:25:50	02-10-25 00:02:12	36.36	100.0	96.8	99.6	13.48	11.62	86.2
19	2582	DISCHARGING	02-10-25 00:08:34	02-10-25 01:09:22	60.81	96.0	89.6	99.6	26.96	25.82	95.75
19	2583	DISCHARGING	02-10-25 01:39:07	02-10-25 02:10:21	31.24	84.0	78.8	99.6	21.91	27.02	76.66
19	2584	DISCHARGING	02-10-25 02:16:41	02-10-25 02:16:49	0.13	78.8	78.8	99.6	0.0	0.76	nan
19	2585	DISCHARGING	02-10-25 02:51:15	02-10-25 03:06:57	15.71	77.6	75.6	99.6	8.43	8.66	97.27

Vehicle 19 – Session SoC Accuracy (Page 2/6)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
19	2586	DISCHARGING	02-10-25 03:20:20	02-10-25 03:21:19	0.99	73.2	72.8	99.6	1.68	0.22	12.89
19	2587	DISCHARGING	02-10-25 04:10:53	02-10-25 05:43:16	92.38	62.8	45.6	99.6	72.46	65.49	90.37
19	2588	DISCHARGING	02-10-25 05:48:18	02-10-25 07:10:16	81.97	45.6	33.2	99.6	52.24	44.22	84.64
19	2590	CHARGING	02-10-25 07:23:56	02-10-25 08:34:28	70.54	33.2	80.0	99.6	197.17	225.05	85.86
19	2591	DISCHARGING	02-10-25 08:34:29	02-10-25 08:36:17	1.78	80.0	80.0	99.6	0.0	0.3	nan
19	2592	CHARGING	02-10-25 08:37:13	02-10-25 09:13:19	36.1	80.0	100.0	99.6	84.26	69.17	82.09
19	2593	DISCHARGING	02-10-25 09:13:20	02-10-25 12:02:21	169.02	100.0	88.8	99.6	47.19	40.81	86.49
19	2594	DISCHARGING	02-10-25 12:08:59	02-10-25 12:34:05	25.1	88.4	88.0	99.6	1.68	1.0	59.21
19	2595	DISCHARGING	02-10-25 12:45:40	02-10-25 14:22:47	97.12	86.8	72.8	99.6	58.98	62.0	94.89
19	2596	DISCHARGING	02-10-25 14:31:30	02-10-25 14:35:34	4.06	71.2	70.8	99.6	1.68	1.27	75.41
19	2597	DISCHARGING	02-10-25 14:45:31	02-10-25 15:38:40	53.14	68.4	56.4	99.6	50.56	45.64	90.27
19	2598	DISCHARGING	02-10-25 16:11:36	02-10-25 16:28:10	16.57	56.4	55.6	99.6	3.37	2.17	64.42
19	2599	DISCHARGING	02-10-25 16:48:01	02-10-25 18:23:38	95.62	51.2	30.0	99.59	89.31	88.28	98.84
19	2600	DISCHARGING	02-10-25 18:30:54	02-10-25 19:18:44	47.82	27.6	24.8	99.2	11.75	6.52	55.48
19	2601	DISCHARGING	02-10-25 21:23:09	02-10-25 21:26:49	3.65	24.8	24.8	99.2	0.0	0.0	nan
19	2602	CHARGING	02-10-25 21:26:50	02-10-25 22:03:31	36.68	24.8	50.0	99.2	105.74	112.58	93.54
19	2603	DISCHARGING	02-10-25 22:03:32	02-10-25 22:04:10	0.62	50.0	50.0	99.2	0.0	2.36	nan
19	2604	CHARGING	02-10-25 22:04:11	02-10-25 22:36:29	32.31	50.0	76.0	99.2	109.1	116.81	92.93
19	2606	CHARGING	02-10-25 22:36:31	02-10-25 23:22:10	45.65	76.0	100.0	99.2	100.71	96.01	95.34
19	2607	DISCHARGING	02-10-25 23:22:11	03-10-25 00:08:49	46.63	100.0	94.8	99.2	21.82	19.9	91.21
19	2608	DISCHARGING	03-10-25 00:14:22	03-10-25 02:08:31	114.16	94.4	77.2	99.2	72.17	74.04	97.41
19	2609	DISCHARGING	03-10-25 02:48:13	03-10-25 04:24:26	96.21	77.2	58.0	99.2	80.57	81.36	99.02
19	2610	DISCHARGING	03-10-25 04:48:36	03-10-25 05:31:43	43.11	52.4	46.0	99.2	26.86	28.73	93.03
19	2611	DISCHARGING	03-10-25 05:41:26	03-10-25 06:11:33	30.13	44.8	42.0	99.2	11.75	11.63	99.0
19	2612	DISCHARGING	03-10-25 06:56:08	03-10-25 07:57:23	61.25	37.6	33.2	99.2	18.46	19.04	96.86
19	2613	CHARGING	03-10-25 07:59:40	03-10-25 08:21:18	21.63	33.2	51.6	99.2	77.21	82.84	92.7
19	2614	CHARGING	03-10-25 08:33:54	03-10-25 08:57:53	23.99	58.8	69.2	99.2	43.64	46.33	93.84
19	2618	DISCHARGING	03-10-25 09:14:52	03-10-25 09:15:35	0.72	70.8	70.8	99.2	0.0	0.01	nan
19	2619	DISCHARGING	03-10-25 09:25:12	03-10-25 09:32:31	7.31	70.4	70.0	99.2	1.68	1.61	95.76
19	2620	CHARGING	03-10-25 09:33:30	03-10-25 10:06:50	33.32	70.0	92.0	99.2	92.32	112.01	78.66

Vehicle 19 – Session SoC Accuracy (Page 3/6)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
19	2621	DISCHARGING	03-10-25 10:06:52	03-10-25 10:06:58	0.1	92.0	92.0	99.2	0.0	0.02	nan
19	2622	CHARGING	03-10-25 10:07:01	03-10-25 10:18:53	11.87	92.0	100.0	99.2	33.57	15.57	46.37
19	2623	DISCHARGING	03-10-25 10:18:55	03-10-25 10:59:58	41.05	100.0	96.8	99.2	13.43	12.86	95.77
19	2624	DISCHARGING	03-10-25 11:21:28	03-10-25 14:17:42	176.24	94.4	84.0	99.2	43.64	40.05	91.77
19	2625	DISCHARGING	04-10-25 03:27:51	04-10-25 04:29:49	61.96	84.0	82.4	99.2	6.71	3.33	49.56
19	2626	DISCHARGING	04-10-25 04:41:22	04-10-25 07:22:22	160.99	82.4	80.8	99.2	6.71	0.35	5.27
19	2627	DISCHARGING	04-10-25 07:48:48	04-10-25 08:42:18	53.51	80.8	80.0	99.2	3.36	1.72	51.1
19	2629	DISCHARGING	04-10-25 09:12:38	04-10-25 10:44:50	92.2	79.6	78.8	99.2	3.36	1.87	55.78
19	2630	DISCHARGING	04-10-25 11:04:21	04-10-25 14:57:18	232.95	78.0	72.4	99.2	23.5	14.62	62.21
19	2631	DISCHARGING	04-10-25 15:03:39	04-10-25 15:57:54	54.25	72.0	70.8	99.2	5.04	1.23	24.32
19	2632	DISCHARGING	04-10-25 16:04:17	04-10-25 16:12:28	8.19	70.8	70.8	99.2	0.0	0.54	nan
19	2634	DISCHARGING	05-10-25 05:38:42	05-10-25 05:52:13	13.51	70.8	70.0	99.2	3.36	2.77	82.5
19	2635	DISCHARGING	05-10-25 06:15:21	05-10-25 06:47:44	32.38	68.8	66.4	99.2	10.07	10.61	94.62
19	2636	DISCHARGING	05-10-25 07:16:59	05-10-25 08:37:13	80.24	64.0	55.2	99.2	36.93	37.53	98.37
19	2637	CHARGING	05-10-25 08:37:14	05-10-25 09:22:42	45.46	55.2	89.2	99.2	142.67	160.27	87.66
19	2638	CHARGING	05-10-25 09:35:40	05-10-25 09:36:48	1.14	89.2	89.2	99.2	0.0	5.34	nan
19	2641	DISCHARGING	05-10-25 09:37:10	05-10-25 11:44:14	127.06	100.0	88.4	99.2	48.68	46.05	94.61
19	2642	DISCHARGING	05-10-25 11:54:52	05-10-25 12:26:33	31.69	88.0	85.6	99.2	10.07	10.32	97.52
19	2643	DISCHARGING	05-10-25 12:40:25	05-10-25 13:55:54	75.49	85.2	75.6	99.2	40.28	41.92	95.93
19	2644	DISCHARGING	05-10-25 14:04:03	05-10-25 15:04:49	60.78	74.0	64.4	99.2	40.28	41.16	97.83
19	2645	DISCHARGING	05-10-25 15:16:25	05-10-25 16:51:15	94.83	62.0	51.2	99.2	45.32	42.65	94.11
19	2646	DISCHARGING	05-10-25 17:10:48	05-10-25 17:57:06	46.29	46.4	35.6	99.2	45.32	41.13	90.75
19	2647	DISCHARGING	05-10-25 18:35:33	05-10-25 18:39:56	4.39	23.2	22.4	99.2	3.36	3.2	95.27
19	2648	DISCHARGING	05-10-25 18:44:57	05-10-25 21:35:14	170.28	21.2	18.8	99.2	10.07	10.97	91.1
19	2649	CHARGING	05-10-25 21:35:15	05-10-25 22:07:27	32.2	18.8	44.8	99.2	109.1	115.67	93.98
19	2651	CHARGING	05-10-25 22:07:29	05-10-25 22:40:04	32.59	44.8	70.8	99.2	109.1	104.7	95.97
19	2653	CHARGING	05-10-25 22:40:06	05-10-25 23:12:23	32.29	70.8	96.0	99.2	105.74	114.23	91.97
19	2655	CHARGING	05-10-25 23:13:06	05-10-25 23:23:20	10.22	96.0	100.0	99.2	16.78	5.69	33.92
19	2656	DISCHARGING	05-10-25 23:23:21	06-10-25 01:41:27	138.11	100.0	81.2	99.2	78.89	76.99	97.59
19	2657	DISCHARGING	06-10-25 01:48:15	06-10-25 01:51:02	2.79	79.6	79.2	99.2	1.68	3.49	-8.14

Vehicle 19 – Session SoC Accuracy (Page 4/6)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
19	2658	DISCHARGING	06-10-25 02:00:46	06-10-25 02:45:35	44.81	79.2	76.4	99.2	11.75	7.54	64.21
19	2659	DISCHARGING	06-10-25 03:12:03	06-10-25 04:37:33	85.5	70.8	57.2	99.2	57.07	59.89	95.06
19	2660	DISCHARGING	06-10-25 04:44:38	06-10-25 08:52:24	247.77	55.6	32.4	99.2	97.35	85.76	88.09
19	2661	CHARGING	06-10-25 08:52:25	06-10-25 09:01:15	8.83	32.4	33.2	99.2	3.36	2.83	84.25
19	2666	DISCHARGING	06-10-25 09:07:41	06-10-25 09:08:29	0.8	33.2	33.2	99.2	0.0	0.04	nan
19	2668	DISCHARGING	06-10-25 09:10:33	06-10-25 09:11:57	1.4	33.2	33.2	99.2	0.0	2.56	nan
19	2669	CHARGING	06-10-25 09:11:58	06-10-25 09:58:45	46.79	33.2	70.4	99.2	156.1	167.59	92.64
19	2671	CHARGING	06-10-25 09:58:47	06-10-25 10:30:37	31.83	70.4	98.8	99.2	119.17	118.2	99.19
19	2672	DISCHARGING	06-10-25 10:30:39	06-10-25 13:22:49	172.16	98.8	88.8	99.2	41.96	37.75	89.96
19	2673	DISCHARGING	06-10-25 13:31:43	06-10-25 13:42:36	10.89	88.8	88.0	99.2	3.36	2.68	79.9
19	2674	DISCHARGING	06-10-25 13:48:08	06-10-25 13:55:04	6.93	87.6	87.2	99.2	1.68	1.85	89.94
19	2675	DISCHARGING	06-10-25 14:31:26	06-10-25 16:58:17	146.84	84.8	58.8	99.2	109.1	110.42	98.79
19	2676	DISCHARGING	06-10-25 17:23:11	06-10-25 17:37:34	14.38	58.8	56.8	99.2	8.39	8.11	96.64
19	2677	DISCHARGING	06-10-25 17:59:08	06-10-25 18:27:58	28.84	52.0	44.8	99.2	30.21	31.12	96.99
19	2678	DISCHARGING	06-10-25 18:33:52	06-10-25 20:25:45	111.87	43.2	26.0	99.2	72.17	63.1	87.43
19	2680	CHARGING	06-10-25 21:52:04	06-10-25 22:13:33	21.49	26.0	43.6	99.2	73.85	75.03	98.41
19	2681	CHARGING	06-10-25 22:23:36	06-10-25 23:23:11	59.59	52.4	100.0	99.2	199.74	191.81	96.03
19	2682	DISCHARGING	06-10-25 23:23:12	07-10-25 02:11:30	168.29	100.0	78.0	99.2	92.32	88.53	95.9
19	2683	DISCHARGING	07-10-25 02:38:53	07-10-25 04:17:47	98.89	78.0	60.0	99.2	75.53	70.04	92.73
19	2684	DISCHARGING	07-10-25 04:30:00	07-10-25 04:56:24	26.4	57.2	53.2	99.2	16.78	19.25	85.29
19	2685	DISCHARGING	07-10-25 05:01:55	07-10-25 05:15:37	13.7	52.4	50.4	99.2	8.39	7.03	83.71
19	2686	DISCHARGING	07-10-25 05:50:21	07-10-25 06:29:04	38.71	48.0	44.4	99.2	15.11	13.94	92.27
19	2687	DISCHARGING	07-10-25 07:03:43	07-10-25 08:38:06	94.37	41.2	38.0	99.2	13.43	11.09	82.59
19	2688	CHARGING	07-10-25 08:38:07	07-10-25 08:41:27	3.34	38.0	38.0	99.2	0.0	0.69	nan
19	2690	CHARGING	07-10-25 08:41:29	07-10-25 08:51:49	10.32	38.0	38.0	99.2	0.0	0.0	nan
19	2692	CHARGING	07-10-25 08:51:51	07-10-25 08:56:41	4.83	38.0	38.0	99.2	0.0	0.55	nan
19	2696	CHARGING	07-10-25 08:57:55	07-10-25 09:42:08	44.21	38.0	74.4	99.2	152.74	163.19	93.16
19	2698	CHARGING	07-10-25 09:42:10	07-10-25 09:44:20	2.17	74.4	74.4	99.2	0.0	1.02	nan
19	2700	CHARGING	07-10-25 09:44:22	07-10-25 10:17:35	33.21	74.4	100.0	99.2	107.42	111.53	96.17
19	2701	DISCHARGING	07-10-25 10:17:37	07-10-25 14:25:07	247.5	100.0	89.2	99.2	45.32	33.54	74.01

Vehicle 19 – Session SoC Accuracy (Page 5/6)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
19	2702	DISCHARGING	07-10-25 14:43:44	07-10-25 15:07:04	23.32	88.4	88.4	99.2	0.0	0.08	nan
19	2703	DISCHARGING	07-10-25 15:21:29	07-10-25 16:26:48	65.32	88.0	86.0	99.2	8.39	7.36	87.64
19	2704	DISCHARGING	07-10-25 16:32:31	08-10-25 00:49:31	496.99	85.6	26.0	99.2	250.09	240.72	96.25
19	2705	CHARGING	08-10-25 00:49:32	08-10-25 00:49:58	0.44	26.0	26.0	99.2	0.0	0.0	nan
19	2707	CHARGING	08-10-25 00:50:40	08-10-25 01:53:30	62.83	26.0	77.6	99.2	216.52	230.68	93.46
19	2709	CHARGING	08-10-25 01:53:32	08-10-25 02:12:38	19.11	77.6	93.2	99.2	65.46	71.7	90.47
19	2710	DISCHARGING	08-10-25 02:12:40	08-10-25 05:01:46	169.1	93.2	72.0	99.2	88.96	89.45	99.45
19	2711	DISCHARGING	08-10-25 05:39:22	08-10-25 06:51:17	71.91	72.0	60.0	99.2	50.35	50.81	99.09
19	2712	DISCHARGING	08-10-25 06:59:35	08-10-25 07:12:03	12.46	58.4	56.4	99.2	8.39	9.15	90.95
19	2713	DISCHARGING	08-10-25 07:31:58	08-10-25 07:51:07	19.15	52.4	48.4	99.2	16.78	16.56	98.64
19	2714	DISCHARGING	08-10-25 08:04:09	08-10-25 10:30:32	146.39	46.4	36.4	99.2	41.96	31.67	75.47
19	2715	DISCHARGING	08-10-25 10:35:34	08-10-25 10:42:04	6.5	36.0	35.2	99.2	3.36	2.9	86.39
19	2716	DISCHARGING	08-10-25 11:03:35	08-10-25 11:46:44	43.14	32.4	29.6	99.2	11.75	8.91	75.87
19	2722	DISCHARGING	08-10-25 15:01:52	08-10-25 15:05:18	3.43	29.6	29.6	99.2	0.0	0.18	nan
19	2723	DISCHARGING	11-10-25 13:13:15	11-10-25 14:13:23	60.14	29.6	28.4	99.2	5.04	0.04	0.83
19	2725	DISCHARGING	15-10-25 01:27:05	15-10-25 01:35:50	8.75	28.4	28.4	99.2	0.0	0.33	nan
19	2726	CHARGING	15-10-25 01:35:51	15-10-25 02:10:47	34.92	28.4	58.4	99.2	125.88	117.44	93.29
19	2727	CHARGING	15-10-25 02:22:05	15-10-25 02:54:44	32.65	69.2	100.0	99.2	129.24	119.95	92.81
19	2729	DISCHARGING	15-10-25 05:02:54	15-10-25 06:55:28	112.57	100.0	90.8	99.2	38.6	38.7	99.77
19	2730	DISCHARGING	15-10-25 07:07:53	15-10-25 08:37:41	89.8	90.4	85.6	99.2	20.14	17.93	89.01
19	2731	DISCHARGING	15-10-25 10:54:11	15-10-25 11:00:03	5.88	85.6	85.6	99.2	0.0	0.66	nan
19	2732	DISCHARGING	15-10-25 12:14:30	15-10-25 17:23:16	308.78	85.6	76.8	99.2	36.93	14.83	40.17
19	2733	DISCHARGING	15-10-25 17:43:25	15-10-25 18:15:29	32.06	75.6	72.8	99.2	11.75	12.04	97.49
19	2734	DISCHARGING	15-10-25 18:34:58	15-10-25 18:35:45	0.79	72.8	72.8	99.2	0.0	0.02	nan
19	2735	DISCHARGING	15-10-25 19:03:24	16-10-25 00:50:32	347.12	72.8	69.6	99.2	13.43	0.01	0.07
19	2737	DISCHARGING	16-10-25 01:03:59	16-10-25 02:48:13	104.23	69.6	68.4	99.2	5.04	0.89	17.68
19	2738	DISCHARGING	16-10-25 03:08:57	16-10-25 03:12:58	4.02	68.4	68.4	99.2	0.0	8.03	nan
19	2739	DISCHARGING	21-10-25 01:51:51	21-10-25 02:07:11	15.33	68.4	68.0	99.2	1.68	0.2	12.01
19	2744	DISCHARGING	23-10-25 02:00:18	23-10-25 02:01:51	1.55	68.0	68.0	99.2	0.0	0.02	nan
19	2745	DISCHARGING	24-10-25 01:04:37	24-10-25 01:07:55	3.3	68.0	67.6	99.2	1.68	0.04	2.52

Vehicle 19 — Session SoC Accuracy (Page 6/6)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
19	2535	DISCHARGING	30-09-25 18:30:00	30-09-25 19:22:27	52.46	41.6	26.0	99.6	65.72	56.05	85.28
19	2536	DISCHARGING	30-09-25 19:34:23	30-09-25 20:33:51	59.45	22.8	20.4	99.6	10.11	9.74	96.36
19	2538	CHARGING	30-09-25 21:29:22	30-09-25 21:29:46	0.41	20.4	20.4	99.6	0.0	0.0	nan
19	2540	CHARGING	30-09-25 21:30:18	30-09-25 21:49:12	18.89	20.4	36.4	99.6	67.41	71.6	93.79
19	2541	CHARGING	30-09-25 21:57:28	30-09-25 21:57:39	0.19	43.6	44.0	99.6	1.68	4.76	-82.3
19	2542	CHARGING	30-09-25 22:04:17	30-09-25 22:32:48	28.52	47.6	72.4	99.6	104.48	114.12	90.78
19	2544	CHARGING	30-09-25 22:33:31	30-09-25 22:37:09	3.64	72.4	74.8	99.6	10.11	11.57	85.55
19	2545	CHARGING	30-09-25 22:42:09	30-09-25 23:11:04	28.91	79.2	96.8	99.6	74.15	86.16	83.8
19	2547	CHARGING	30-09-25 23:11:49	30-09-25 23:15:28	3.64	96.8	100.0	99.6	13.48	0.92	6.86
19	2548	DISCHARGING	30-09-25 23:15:29	01-10-25 02:09:32	174.06	100.0	77.6	99.6	94.37	89.72	95.07
19	2750	DISCHARGING	30-10-25 12:58:30	30-10-25 13:03:34	5.06	67.2	67.2	99.2	0.0	3.85	nan

Vehicle 20 – Session SoC Accuracy (Page 1/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
20	2751	CHARGING	14-10-25 11:43:28	14-10-25 12:27:15	43.8	71.6	80.0	100.0	35.53	38.34	92.09
20	2753	CHARGING	14-10-25 12:27:41	14-10-25 12:28:40	0.99	80.0	80.0	100.0	0.0	0.0	nan
20	2755	CHARGING	14-10-25 12:28:42	14-10-25 12:36:41	7.98	80.0	80.0	100.0	0.0	5.66	nan
20	2757	CHARGING	14-10-25 12:39:04	14-10-25 12:55:08	16.06	80.0	84.8	100.0	20.3	27.71	63.54
20	2760	DISCHARGING	14-10-25 12:55:13	14-10-25 13:05:27	10.24	84.8	84.8	100.0	0.0	3.04	nan
20	2761	CHARGING	14-10-25 13:05:29	14-10-25 13:30:57	25.47	84.8	100.0	100.0	64.3	24.91	38.74
20	2762	DISCHARGING	14-10-25 13:30:57	14-10-25 13:32:28	1.52	100.0	100.0	100.0	0.0	0.0	nan
20	2764	DISCHARGING	14-10-25 14:05:53	14-10-25 15:29:47	83.9	100.0	98.8	100.0	5.08	16.22	-119.58
20	2765	DISCHARGING	14-10-25 16:40:33	14-10-25 21:23:00	282.46	98.8	66.8	100.0	135.36	130.2	96.19
20	2766	DISCHARGING	14-10-25 21:38:57	15-10-25 02:03:24	264.45	63.6	56.4	100.0	30.46	29.0	95.23
20	2767	DISCHARGING	15-10-25 02:14:22	15-10-25 02:18:17	3.92	56.4	56.4	100.0	0.0	14.96	nan
20	2768	CHARGING	15-10-25 02:20:59	15-10-25 03:48:08	87.16	56.4	100.0	100.0	184.43	197.5	92.91
20	2770	DISCHARGING	15-10-25 03:55:57	15-10-25 03:59:28	3.51	100.0	99.6	100.0	1.69	0.97	57.08
20	2772	DISCHARGING	15-10-25 04:52:34	15-10-25 05:01:54	9.33	99.6	99.6	100.0	0.0	6.52	nan
20	2773	DISCHARGING	15-10-25 05:46:13	15-10-25 06:36:47	50.57	99.6	98.0	100.0	6.77	4.54	67.08
20	2774	DISCHARGING	15-10-25 07:13:04	15-10-25 08:39:31	86.45	98.0	96.0	100.0	8.46	2.27	26.83
20	2775	DISCHARGING	15-10-25 10:17:42	15-10-25 10:57:59	40.28	96.0	94.8	100.0	5.08	4.44	87.53
20	2776	DISCHARGING	15-10-25 11:12:16	15-10-25 11:14:29	2.22	94.4	94.4	100.0	0.0	0.32	nan
20	2777	DISCHARGING	15-10-25 11:42:15	15-10-25 11:42:33	0.31	94.4	94.4	100.0	0.0	4.36	nan
20	2778	DISCHARGING	15-10-25 11:58:25	15-10-25 12:21:52	23.45	94.4	94.0	100.0	1.69	1.03	60.65
20	2779	DISCHARGING	15-10-25 12:56:27	15-10-25 16:51:25	234.96	94.0	78.4	100.0	65.99	66.09	99.85
20	2780	DISCHARGING	15-10-25 17:04:38	15-10-25 17:50:17	45.66	77.2	75.2	100.0	8.46	11.66	62.15
20	2781	DISCHARGING	15-10-25 18:11:46	15-10-25 18:44:51	33.09	73.2	70.8	100.0	10.15	8.66	85.26
20	2782	DISCHARGING	15-10-25 18:56:25	15-10-25 20:02:41	66.26	69.6	65.2	100.0	18.61	18.8	98.97
20	2784	CHARGING	15-10-25 20:20:58	15-10-25 22:36:56	135.97	65.2	69.2	100.0	16.92	23.62	60.4
20	2785	CHARGING	15-10-25 22:44:38	16-10-25 00:28:26	103.79	69.2	69.2	100.0	0.0	0.15	nan
20	2786	CHARGING	16-10-25 00:44:23	16-10-25 03:06:58	142.59	68.8	68.8	100.0	0.0	2.17	nan
20	2787	CHARGING	16-10-25 03:39:59	16-10-25 05:38:14	118.24	66.8	66.8	100.0	0.0	6.31	nan
20	2788	DISCHARGING	16-10-25 05:38:15	16-10-25 09:51:42	253.46	64.8	57.2	100.0	32.15	19.44	60.49
20	2789	DISCHARGING	16-10-25 10:00:20	16-10-25 10:23:28	23.14	57.2	56.0	100.0	5.08	3.62	71.21

Vehicle 20 – Session SoC Accuracy (Page 2/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
20	2790	DISCHARGING	16-10-25 10:31:44	16-10-25 10:40:39	8.91	56.0	55.6	100.0	1.69	1.42	83.7
20	2791	DISCHARGING	16-10-25 11:16:32	16-10-25 14:25:33	189.03	55.6	52.4	100.0	13.54	5.25	38.81
20	2792	DISCHARGING	16-10-25 16:47:54	16-10-25 16:51:34	3.67	52.4	52.0	100.0	1.69	0.1	5.67
20	2793	DISCHARGING	17-10-25 05:23:12	17-10-25 06:24:55	61.71	52.0	50.8	100.0	5.08	2.18	42.95
20	2794	DISCHARGING	17-10-25 06:38:07	17-10-25 07:59:55	81.8	50.4	48.8	100.0	6.77	1.99	29.41
20	2795	DISCHARGING	17-10-25 08:09:15	17-10-25 09:27:31	78.27	48.4	46.8	100.0	6.77	2.58	38.14
20	2797	DISCHARGING	17-10-25 10:27:00	17-10-25 10:38:24	11.4	46.8	46.4	100.0	1.69	0.25	15.03
20	2798	CHARGING	17-10-25 10:38:25	17-10-25 10:38:26	0.02	46.4	46.4	100.0	0.0	0.06	nan
20	2799	CHARGING	17-10-25 11:06:46	17-10-25 13:06:39	119.88	46.4	100.0	100.0	226.73	225.09	99.28
20	2800	DISCHARGING	17-10-25 13:06:40	17-10-25 14:56:55	110.26	100.0	94.0	100.0	25.38	20.65	81.36
20	2801	DISCHARGING	17-10-25 15:06:18	17-10-25 15:46:02	39.73	93.6	91.2	100.0	10.15	9.6	94.6
20	2802	DISCHARGING	17-10-25 15:54:17	17-10-25 16:42:46	48.48	90.8	86.8	100.0	16.92	15.44	91.26
20	2803	DISCHARGING	17-10-25 17:24:02	17-10-25 18:25:30	61.46	82.0	73.2	100.0	37.22	40.15	92.13
20	2804	DISCHARGING	17-10-25 18:33:46	17-10-25 19:38:51	65.08	71.6	62.8	100.0	37.22	35.51	95.39
20	2805	DISCHARGING	17-10-25 19:52:05	17-10-25 20:19:48	27.71	59.6	55.6	100.0	16.92	15.68	92.69
20	2806	CHARGING	17-10-25 20:19:50	17-10-25 20:50:05	30.25	55.6	78.0	100.0	94.75	99.11	95.4
20	2807	CHARGING	17-10-25 21:01:05	17-10-25 21:05:03	3.97	88.0	91.2	100.0	13.54	13.36	98.68
20	2810	DISCHARGING	17-10-25 21:05:29	17-10-25 21:50:30	45.02	91.2	80.8	100.0	43.99	44.68	98.43
20	2811	DISCHARGING	17-10-25 21:58:12	17-10-25 23:31:24	93.2	78.8	58.0	100.0	87.98	92.47	94.9
20	2812	DISCHARGING	17-10-25 23:37:27	18-10-25 00:49:00	71.55	56.8	49.6	100.0	30.46	30.67	99.29
20	2813	DISCHARGING	18-10-25 00:55:03	18-10-25 01:22:25	27.37	48.8	47.6	100.0	5.08	4.01	79.02
20	2814	DISCHARGING	18-10-25 01:42:14	18-10-25 02:35:29	53.25	47.2	46.0	100.0	5.08	2.29	45.03
20	2815	CHARGING	18-10-25 02:35:30	18-10-25 03:14:28	38.97	46.0	66.8	100.0	87.98	92.48	94.89
20	2816	CHARGING	18-10-25 03:26:01	18-10-25 04:57:09	91.12	72.8	98.8	100.0	109.98	126.78	84.72
20	2817	DISCHARGING	18-10-25 04:57:09	18-10-25 05:09:13	12.07	100.0	99.6	100.0	1.69	0.45	26.62
20	2818	DISCHARGING	18-10-25 05:53:43	18-10-25 06:23:48	30.08	99.6	98.8	100.0	3.38	1.98	58.44
20	2819	DISCHARGING	18-10-25 06:29:06	18-10-25 06:30:46	1.68	98.8	98.8	100.0	0.0	16.38	nan
20	2820	DISCHARGING	18-10-25 07:17:43	18-10-25 07:38:05	20.36	98.8	98.8	100.0	0.0	0.78	nan
20	2821	DISCHARGING	18-10-25 09:21:23	18-10-25 10:30:29	69.09	98.8	98.4	100.0	1.69	0.55	32.28
20	2823	DISCHARGING	18-10-25 13:04:19	18-10-25 13:49:24	45.09	98.4	97.6	100.0	3.38	1.48	43.74

Vehicle 20 – Session SoC Accuracy (Page 3/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
20	2825	DISCHARGING	18-10-25 14:27:55	18-10-25 15:18:14	50.32	97.6	96.4	100.0	5.08	3.99	78.53
20	2826	DISCHARGING	18-10-25 15:25:56	18-10-25 16:27:15	61.32	96.0	92.8	100.0	13.54	10.09	74.52
20	2827	DISCHARGING	18-10-25 16:35:32	18-10-25 17:20:36	45.06	92.4	89.6	100.0	11.84	9.83	83.0
20	2828	DISCHARGING	18-10-25 17:28:52	18-10-25 18:02:42	33.82	88.8	86.8	100.0	8.46	9.02	93.32
20	2829	DISCHARGING	18-10-25 18:08:45	18-10-25 18:46:10	37.43	86.8	84.0	100.0	11.84	10.53	88.93
20	2830	DISCHARGING	18-10-25 18:55:32	18-10-25 19:44:35	49.05	83.6	77.6	100.0	25.38	25.3	99.67
20	2831	DISCHARGING	18-10-25 20:17:03	18-10-25 20:22:09	5.11	75.6	75.6	100.0	0.0	0.47	nan
20	2832	CHARGING	18-10-25 20:22:10	18-10-25 20:25:44	3.56	75.6	75.6	100.0	0.0	0.47	nan
20	2833	DISCHARGING	18-10-25 20:25:45	18-10-25 20:26:03	0.3	75.2	75.2	100.0	0.0	0.03	nan
20	2834	CHARGING	18-10-25 20:26:04	18-10-25 20:28:17	2.23	75.2	75.6	100.0	1.69	0.98	57.83
20	2836	CHARGING	18-10-25 20:29:31	18-10-25 20:31:34	2.05	75.6	76.0	100.0	1.69	2.83	32.94
20	2838	CHARGING	18-10-25 20:31:42	18-10-25 21:04:05	32.39	76.0	90.8	100.0	62.6	101.63	37.66
20	2839	DISCHARGING	18-10-25 21:04:06	18-10-25 21:46:11	42.09	90.8	82.8	100.0	33.84	32.08	94.8
20	2840	DISCHARGING	18-10-25 21:56:07	18-10-25 22:29:37	33.5	81.6	75.6	100.0	25.38	26.1	97.18
20	2841	DISCHARGING	18-10-25 22:40:38	18-10-25 23:09:45	29.12	74.0	68.8	100.0	22.0	23.04	95.26
20	2842	DISCHARGING	18-10-25 23:16:23	18-10-25 23:23:12	6.81	67.6	66.4	100.0	5.08	3.57	70.29
20	2843	DISCHARGING	18-10-25 23:29:15	18-10-25 23:44:05	14.83	65.2	62.8	100.0	10.15	11.81	83.69
20	2844	DISCHARGING	18-10-25 23:58:57	19-10-25 00:15:45	16.79	60.0	58.4	100.0	6.77	8.53	74.01
20	2845	DISCHARGING	19-10-25 00:26:46	19-10-25 00:29:50	3.06	56.4	56.0	100.0	1.69	3.96	-33.75
20	2846	DISCHARGING	19-10-25 00:38:06	19-10-25 00:40:03	1.95	54.8	54.8	100.0	0.0	2.33	nan
20	2847	DISCHARGING	19-10-25 00:57:40	19-10-25 02:38:46	101.11	52.0	44.0	100.0	33.84	27.44	81.1
20	2848	CHARGING	19-10-25 02:48:46	19-10-25 03:21:05	32.32	44.0	71.2	100.0	115.06	122.66	93.39
20	2849	CHARGING	19-10-25 03:35:23	19-10-25 03:53:37	18.23	84.8	100.0	100.0	64.3	42.72	66.44
20	2859	DISCHARGING	19-10-25 06:46:52	19-10-25 07:14:55	28.05	100.0	99.2	100.0	3.38	2.45	72.5
20	2860	DISCHARGING	19-10-25 07:57:40	19-10-25 08:15:25	17.74	99.2	98.4	100.0	3.38	1.23	36.39
20	2861	DISCHARGING	19-10-25 09:18:03	19-10-25 09:21:43	3.66	98.4	98.4	100.0	0.0	0.19	nan
20	2863	DISCHARGING	19-10-25 12:47:08	19-10-25 13:21:59	34.85	98.4	98.0	100.0	1.69	1.08	64.11
20	2864	DISCHARGING	19-10-25 14:31:40	19-10-25 14:38:05	6.42	98.0	98.0	100.0	0.0	9.56	nan
20	2865	DISCHARGING	19-10-25 15:07:13	19-10-25 18:12:10	184.95	96.0	76.0	100.0	84.6	86.18	98.13
20	2866	DISCHARGING	19-10-25 18:18:47	19-10-25 19:15:56	57.15	74.4	63.6	100.0	45.68	45.78	99.79

Vehicle 20 – Session SoC Accuracy (Page 4/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
20	2867	DISCHARGING	19-10-25 19:34:37	19-10-25 19:34:39	0.03	60.8	60.8	100.0	0.0	0.0	nan
20	2868	CHARGING	19-10-25 19:34:41	19-10-25 20:09:16	34.59	60.8	83.6	100.0	96.44	118.53	77.1
20	2869	CHARGING	19-10-25 20:15:54	19-10-25 20:20:01	4.12	88.4	91.2	100.0	11.84	4.27	36.06
20	2870	DISCHARGING	19-10-25 20:21:13	19-10-25 23:46:17	205.06	91.2	55.6	100.0	150.59	154.79	97.21
20	2871	DISCHARGING	20-10-25 00:17:40	20-10-25 00:39:33	21.89	52.0	50.8	100.0	5.08	4.3	84.79
20	2872	DISCHARGING	20-10-25 01:24:22	20-10-25 01:35:55	11.56	50.8	50.4	100.0	1.69	2.38	59.04
20	2873	DISCHARGING	20-10-25 01:43:38	20-10-25 02:00:13	16.59	50.4	50.4	100.0	0.0	0.8	nan
20	2874	DISCHARGING	20-10-25 04:19:10	20-10-25 04:20:35	1.42	50.4	50.4	100.0	0.0	3.06	nan
20	2875	DISCHARGING	20-10-25 04:31:35	20-10-25 04:52:42	21.11	50.0	49.6	100.0	1.69	0.87	51.5
20	2876	CHARGING	20-10-25 04:53:52	20-10-25 05:16:58	23.11	49.6	63.2	100.0	57.53	61.32	93.4
20	2877	CHARGING	20-10-25 05:32:54	20-10-25 05:43:14	10.33	71.2	76.4	100.0	22.0	24.93	86.66
20	2878	CHARGING	20-10-25 06:02:28	20-10-25 06:04:07	1.66	83.6	84.4	100.0	3.38	5.75	30.16
20	2880	DISCHARGING	20-10-25 09:01:24	20-10-25 09:17:47	16.39	84.4	84.4	100.0	0.0	0.21	nan
20	2882	DISCHARGING	20-10-25 09:56:49	20-10-25 10:19:35	22.77	99.6	98.8	100.0	3.38	2.17	64.07
20	2884	DISCHARGING	20-10-25 10:46:15	20-10-25 11:03:11	16.94	98.4	98.0	100.0	1.69	0.61	36.14
20	2886	DISCHARGING	20-10-25 12:33:25	20-10-25 15:53:17	199.87	98.0	88.8	100.0	38.92	31.48	80.88
20	2887	DISCHARGING	20-10-25 16:13:07	20-10-25 16:23:23	10.26	86.4	86.4	100.0	0.0	0.23	nan
20	2888	DISCHARGING	20-10-25 16:36:36	20-10-25 17:47:26	70.83	84.8	79.2	100.0	23.69	22.77	96.13
20	2889	CHARGING	20-10-25 17:47:29	20-10-25 18:13:12	25.72	79.2	90.0	100.0	45.68	87.7	8.02
20	2890	DISCHARGING	20-10-25 18:13:16	20-10-25 22:45:42	272.44	90.0	49.6	99.88	170.69	175.28	97.31
20	2891	DISCHARGING	20-10-25 22:52:08	21-10-25 00:34:00	101.87	49.2	41.6	99.6	32.02	26.0	81.2
20	2892	CHARGING	21-10-25 00:36:19	21-10-25 02:09:22	93.05	41.6	100.0	99.6	246.04	220.45	89.6
20	2893	DISCHARGING	21-10-25 02:14:31	21-10-25 02:16:55	2.4	100.0	99.6	99.6	1.68	0.14	8.43
20	2895	DISCHARGING	21-10-25 09:38:07	21-10-25 09:43:51	5.73	99.6	99.6	99.6	0.0	0.12	nan
20	2896	DISCHARGING	21-10-25 10:28:59	21-10-25 11:04:19	35.33	99.6	99.2	99.6	1.68	0.41	24.47
20	2897	DISCHARGING	21-10-25 11:10:46	21-10-25 12:22:40	71.89	99.2	99.2	99.6	0.0	0.48	nan
20	2898	DISCHARGING	21-10-25 12:30:41	21-10-25 14:00:49	90.13	99.2	95.6	99.6	15.17	10.98	72.38
20	2899	DISCHARGING	21-10-25 14:20:46	21-10-25 18:39:32	258.77	94.8	62.8	99.6	134.82	137.56	97.97
20	2900	DISCHARGING	21-10-25 18:52:28	21-10-25 19:03:30	11.04	60.4	58.8	99.6	6.74	8.69	71.05
20	2901	CHARGING	21-10-25 19:03:32	21-10-25 19:49:38	46.1	58.8	91.2	99.6	136.5	157.45	84.66

Vehicle 20 – Session SoC Accuracy (Page 5/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
20	2902	DISCHARGING	21-10-25 19:49:38	21-10-25 20:46:26	56.8	91.2	77.2	99.6	58.98	61.57	95.61
20	2903	DISCHARGING	21-10-25 20:52:46	22-10-25 00:09:39	196.88	75.6	43.6	99.6	134.82	136.47	98.77
20	2905	CHARGING	22-10-25 00:44:41	22-10-25 02:15:54	91.21	43.6	100.0	99.6	237.62	241.73	98.27
20	2907	DISCHARGING	22-10-25 04:27:13	22-10-25 04:40:46	13.55	100.0	99.6	99.6	1.68	0.35	20.55
20	2908	DISCHARGING	22-10-25 05:24:24	22-10-25 06:11:52	47.47	99.6	98.4	99.6	5.06	2.93	57.91
20	2909	DISCHARGING	22-10-25 07:34:28	22-10-25 07:45:29	11.02	98.4	98.0	99.6	1.68	0.81	48.14
20	2910	DISCHARGING	22-10-25 10:12:06	22-10-25 10:56:13	44.12	98.0	97.2	99.6	3.37	5.82	27.17
20	2911	DISCHARGING	22-10-25 12:19:07	22-10-25 13:01:30	42.39	97.2	95.6	99.6	6.74	5.82	86.42
20	2912	DISCHARGING	22-10-25 13:11:28	22-10-25 14:06:23	54.93	94.8	92.8	99.6	8.43	6.98	82.84
20	2913	DISCHARGING	22-10-25 14:18:01	22-10-25 14:25:39	7.64	92.4	92.0	99.6	1.68	1.15	68.31
20	2914	DISCHARGING	22-10-25 14:35:35	22-10-25 15:44:49	69.24	91.6	88.8	99.6	11.8	10.38	87.95
20	2915	DISCHARGING	22-10-25 15:49:51	22-10-25 16:07:25	17.57	88.8	88.4	99.6	1.68	0.77	45.91
20	2916	DISCHARGING	22-10-25 16:15:27	22-10-25 17:35:41	80.22	87.6	81.2	99.6	26.96	27.81	96.87
20	2917	DISCHARGING	22-10-25 17:55:33	22-10-25 17:57:08	1.57	80.0	79.6	99.6	1.68	0.34	20.14
20	2918	CHARGING	22-10-25 17:59:12	22-10-25 18:27:11	27.99	79.6	92.0	99.6	52.24	86.26	34.89
20	2919	DISCHARGING	22-10-25 18:27:12	22-10-25 20:19:16	112.07	92.0	73.6	99.6	77.52	80.69	95.91
20	2920	DISCHARGING	22-10-25 20:25:59	22-10-25 22:44:11	138.2	72.8	52.8	99.6	84.26	87.44	96.22
20	2921	DISCHARGING	22-10-25 22:57:25	23-10-25 00:56:37	119.19	51.2	42.0	99.6	38.76	39.64	97.74
20	2922	CHARGING	23-10-25 01:00:24	23-10-25 02:22:03	81.66	42.0	100.0	99.6	244.36	227.44	93.08
20	2925	DISCHARGING	23-10-25 02:31:22	23-10-25 02:33:36	2.23	100.0	99.6	99.6	1.68	0.25	14.82
20	2926	DISCHARGING	23-10-25 03:02:11	23-10-25 03:04:54	2.71	99.6	99.6	99.6	0.0	1.03	nan
20	2927	DISCHARGING	23-10-25 03:19:29	23-10-25 03:19:48	0.31	99.6	99.6	99.6	0.0	0.96	nan
20	2928	DISCHARGING	23-10-25 08:25:59	23-10-25 08:27:38	1.65	99.6	99.6	99.6	0.0	6.6	nan
20	2929	DISCHARGING	23-10-25 08:43:34	23-10-25 08:44:46	1.19	99.6	99.6	99.6	0.0	0.07	nan
20	2930	DISCHARGING	23-10-25 11:31:23	23-10-25 14:30:45	179.36	99.6	98.4	99.6	5.06	3.47	68.63
20	2931	DISCHARGING	23-10-25 14:39:03	23-10-25 15:21:20	42.28	98.0	95.2	99.6	11.8	10.2	86.47
20	2932	DISCHARGING	23-10-25 15:31:18	23-10-25 15:32:48	1.51	94.8	94.8	99.6	0.0	0.32	nan
20	2933	DISCHARGING	23-10-25 15:39:12	23-10-25 20:19:55	280.72	94.4	58.0	99.6	153.36	157.94	97.01
20	2934	CHARGING	23-10-25 20:22:57	23-10-25 21:12:26	49.49	58.0	91.2	99.6	139.87	162.16	84.06
20	2935	DISCHARGING	23-10-25 21:12:28	23-10-25 22:16:54	64.45	91.2	76.4	99.6	62.35	65.01	95.74

Vehicle 20 – Session SoC Accuracy (Page 6/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
20	2936	DISCHARGING	23-10-25 22:23:34	23-10-25 23:27:20	63.77	74.8	59.6	99.6	64.04	59.09	92.27
20	2937	DISCHARGING	23-10-25 23:34:04	23-10-25 23:38:16	4.2	58.8	58.8	99.6	0.0	0.38	nan
20	2938	DISCHARGING	23-10-25 23:47:54	24-10-25 00:36:46	48.87	56.8	50.4	99.6	26.96	21.33	79.11
20	2939	DISCHARGING	24-10-25 00:43:27	24-10-25 02:08:32	85.08	49.2	44.0	99.6	21.91	14.96	68.29
20	2940	DISCHARGING	24-10-25 02:30:02	24-10-25 02:34:23	4.36	44.0	44.0	99.6	0.0	0.19	nan
20	2942	DISCHARGING	24-10-25 04:12:02	24-10-25 04:14:38	2.6	44.0	44.0	99.6	0.0	0.1	nan
20	2943	CHARGING	24-10-25 04:17:02	24-10-25 05:42:55	85.9	44.0	100.0	99.6	235.93	222.92	94.48
20	2945	DISCHARGING	24-10-25 06:08:11	24-10-25 06:08:36	0.42	100.0	100.0	99.6	0.0	0.73	nan
20	2946	DISCHARGING	24-10-25 06:27:06	24-10-25 06:40:21	13.24	100.0	99.6	99.6	1.68	0.61	36.29
20	2947	DISCHARGING	24-10-25 07:31:09	24-10-25 08:41:30	70.34	99.6	98.0	99.6	6.74	3.92	58.14
20	2948	DISCHARGING	24-10-25 11:29:16	24-10-25 11:33:57	4.69	98.0	98.0	99.6	0.0	0.0	nan
20	2949	DISCHARGING	24-10-25 12:27:14	24-10-25 14:36:41	129.45	98.0	94.4	99.6	15.17	11.27	74.28
20	2950	DISCHARGING	24-10-25 14:41:42	24-10-25 15:35:34	53.86	94.0	91.2	99.6	11.8	10.87	92.18
20	2951	DISCHARGING	24-10-25 15:42:45	24-10-25 17:27:44	104.99	90.8	86.0	99.6	20.22	17.97	88.84
20	2952	DISCHARGING	24-10-25 17:49:17	24-10-25 20:41:47	172.51	84.0	60.4	99.6	99.43	102.79	96.62
20	2953	DISCHARGING	24-10-25 21:32:20	24-10-25 23:56:25	144.09	79.6	57.2	99.6	94.37	99.36	94.71
20	2954	DISCHARGING	25-10-25 00:12:39	25-10-25 02:15:10	122.52	54.0	41.6	99.6	52.24	43.35	82.99
20	2955	CHARGING	25-10-25 02:15:12	25-10-25 04:05:30	110.29	41.6	100.0	99.6	246.04	244.45	99.35
20	2959	DISCHARGING	25-10-25 05:23:01	25-10-25 05:41:49	18.79	100.0	99.2	99.6	3.37	2.22	65.98
20	2960	DISCHARGING	25-10-25 06:00:20	25-10-25 06:59:22	59.04	99.2	98.0	99.6	5.06	2.61	51.58
20	2961	DISCHARGING	25-10-25 07:09:18	25-10-25 07:29:54	20.6	97.6	97.6	99.6	0.0	0.65	nan
20	2962	DISCHARGING	25-10-25 07:41:48	25-10-25 07:43:58	2.15	97.6	97.6	99.6	0.0	2.49	nan
20	2966	DISCHARGING	25-10-25 12:46:18	25-10-25 16:04:55	198.61	97.2	87.2	99.6	42.13	37.76	89.63
20	2967	DISCHARGING	25-10-25 16:19:51	25-10-25 19:19:41	179.84	85.6	52.8	99.6	138.19	142.42	96.94
20	2968	CHARGING	25-10-25 19:19:42	25-10-25 19:39:52	20.17	52.8	66.4	99.6	57.3	61.7	92.32
20	2972	CHARGING	25-10-25 19:43:53	25-10-25 20:14:15	30.36	66.4	86.0	99.6	82.58	107.98	69.24
20	2973	DISCHARGING	25-10-25 20:14:16	25-10-25 21:01:02	46.77	86.0	74.4	99.6	48.87	47.02	96.2
20	2974	DISCHARGING	25-10-25 21:14:00	25-10-25 21:51:57	37.94	71.2	62.0	99.6	38.76	40.7	94.99
20	2975	DISCHARGING	25-10-25 21:58:36	25-10-25 23:43:29	104.88	60.4	43.6	99.6	70.78	73.09	96.74
20	2976	DISCHARGING	25-10-25 23:59:03	26-10-25 00:11:14	12.19	43.6	43.6	99.6	0.0	0.39	nan

Vehicle 20 – Session SoC Accuracy (Page 7/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
20	2977	CHARGING	26-10-25 00:12:29	26-10-25 02:33:33	141.07	43.6	90.0	99.6	195.49	217.81	88.58
20	2978	DISCHARGING	26-10-25 02:33:35	26-10-25 05:06:55	153.32	90.0	76.4	99.6	57.3	54.91	95.84
20	2979	DISCHARGING	26-10-25 05:42:49	26-10-25 05:45:26	2.6	72.4	72.4	99.6	0.0	2.62	nan
20	2980	CHARGING	26-10-25 05:47:13	26-10-25 06:18:14	31.0	72.4	100.0	99.6	116.28	86.6	74.47
20	2981	DISCHARGING	26-10-25 06:18:14	26-10-25 06:51:12	32.97	100.0	94.4	99.6	23.59	21.32	90.37
20	2982	DISCHARGING	26-10-25 07:04:02	26-10-25 07:29:24	25.37	91.6	87.2	99.6	18.54	20.1	91.59
20	2983	DISCHARGING	26-10-25 07:39:09	26-10-25 07:46:59	7.83	85.6	83.6	99.6	8.43	8.31	98.63
20	2984	DISCHARGING	26-10-25 08:31:17	26-10-25 08:33:56	2.65	75.6	75.6	99.6	0.0	1.3	nan
20	2985	DISCHARGING	26-10-25 08:45:17	26-10-25 09:59:19	74.04	73.6	60.8	99.6	53.93	54.52	98.91
20	2986	DISCHARGING	26-10-25 10:07:18	26-10-25 11:43:25	96.12	59.6	50.0	99.6	40.45	43.67	92.03
20	2987	DISCHARGING	26-10-25 12:01:36	26-10-25 13:08:43	67.12	48.4	44.0	99.6	18.54	15.13	81.62
20	2988	DISCHARGING	26-10-25 13:23:57	26-10-25 13:36:02	12.07	44.0	44.0	99.6	0.0	0.51	nan
20	2989	CHARGING	26-10-25 13:36:03	26-10-25 15:39:28	123.42	44.0	90.4	99.6	195.49	229.56	82.57
20	2990	DISCHARGING	26-10-25 15:39:29	26-10-25 17:37:30	118.0	90.4	82.8	99.6	32.02	27.64	86.32
20	2991	DISCHARGING	26-10-25 17:43:51	26-10-25 19:59:32	135.68	82.4	61.2	99.6	89.32	93.87	94.91
20	2992	DISCHARGING	26-10-25 20:22:23	26-10-25 21:14:54	52.51	57.6	48.4	99.6	38.76	41.57	92.75
20	2993	CHARGING	26-10-25 21:15:54	26-10-25 21:33:02	17.13	48.4	62.8	99.6	60.67	64.98	92.89
20	2994	DISCHARGING	26-10-25 22:06:26	27-10-25 02:31:00	264.56	90.8	43.2	99.6	200.54	206.76	96.9
20	2995	DISCHARGING	27-10-25 02:38:56	27-10-25 03:21:45	42.81	43.2	42.4	99.6	3.37	0.52	15.3
20	2996	DISCHARGING	27-10-25 04:07:23	27-10-25 04:22:04	14.68	42.4	42.4	99.6	0.0	8.82	nan
20	2999	CHARGING	27-10-25 04:22:36	27-10-25 04:41:48	19.21	42.4	49.2	99.6	28.65	30.19	94.61
20	3000	DISCHARGING	27-10-25 04:41:51	27-10-25 04:42:36	0.74	49.2	49.2	99.6	0.0	2.26	nan
20	3001	CHARGING	27-10-25 04:42:37	27-10-25 07:27:04	164.45	49.2	100.0	99.6	214.02	215.82	99.16
20	3002	DISCHARGING	27-10-25 07:27:05	27-10-25 07:34:45	7.67	100.0	99.6	99.6	1.68	0.18	10.85
20	3004	DISCHARGING	27-10-25 10:14:40	27-10-25 10:33:53	19.21	99.6	99.2	99.6	1.68	0.24	14.54
20	3005	DISCHARGING	27-10-25 11:29:07	27-10-25 11:38:31	9.41	99.2	99.2	99.6	0.0	0.97	nan
20	3006	DISCHARGING	27-10-25 11:51:56	27-10-25 11:53:28	1.54	99.2	99.2	99.6	0.0	0.03	nan
20	3007	DISCHARGING	27-10-25 12:43:30	27-10-25 13:23:31	40.03	99.2	96.0	99.6	13.48	10.65	78.99
20	3008	DISCHARGING	27-10-25 13:36:52	27-10-25 13:46:06	9.23	95.6	95.6	99.6	0.0	0.65	nan
20	3009	DISCHARGING	27-10-25 13:54:25	27-10-25 15:01:46	67.36	94.8	92.4	99.6	10.11	7.57	74.89

Vehicle 20 – Session SoC Accuracy (Page 8/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
20	3010	DISCHARGING	27-10-25 15:11:46	27-10-25 15:18:55	7.15	91.2	90.0	99.6	5.06	5.82	84.84
20	3011	DISCHARGING	27-10-25 15:28:53	27-10-25 16:46:41	77.8	89.6	82.4	99.6	30.33	14.79	48.74
20	3012	CHARGING	27-10-25 16:46:42	27-10-25 17:12:38	25.93	82.4	90.8	99.6	35.39	61.53	26.15
20	3013	DISCHARGING	27-10-25 17:12:39	27-10-25 20:23:05	190.44	90.8	60.8	99.6	126.39	131.25	96.16
20	3014	DISCHARGING	27-10-25 20:29:27	27-10-25 21:12:08	42.69	60.4	55.6	99.6	20.22	20.13	99.54
20	3015	DISCHARGING	27-10-25 21:21:49	27-10-25 22:39:39	77.84	54.8	46.8	99.6	33.7	32.83	97.41
20	3016	DISCHARGING	27-10-25 22:46:18	27-10-25 23:19:44	33.43	46.0	43.6	99.6	10.11	10.71	94.05
20	3018	CHARGING	27-10-25 23:48:54	28-10-25 01:34:44	105.83	42.4	91.2	99.6	205.6	230.84	87.72
20	3020	CHARGING	28-10-25 01:34:47	28-10-25 01:45:16	10.48	91.2	100.0	99.6	37.08	5.72	15.42
20	3021	DISCHARGING	28-10-25 01:56:17	28-10-25 02:00:12	3.92	100.0	99.6	99.6	1.68	0.0	0.0
20	3022	DISCHARGING	28-10-25 02:09:10	28-10-25 03:35:22	86.21	99.6	94.0	99.6	23.59	9.33	39.55
20	3023	DISCHARGING	28-10-25 03:41:47	28-10-25 05:16:52	95.08	93.6	87.6	99.6	25.28	23.43	92.69
20	3024	DISCHARGING	28-10-25 05:28:29	28-10-25 07:16:56	108.45	86.8	66.8	99.6	84.26	90.42	92.69
20	3025	DISCHARGING	28-10-25 07:24:00	28-10-25 08:21:29	57.48	65.2	52.4	99.6	53.93	56.18	95.83
20	3026	CHARGING	28-10-25 08:27:49	28-10-25 08:57:29	29.66	55.6	80.0	99.6	102.8	119.12	84.12
20	3027	CHARGING	28-10-25 09:02:42	28-10-25 09:14:22	11.67	80.0	85.2	99.6	21.91	42.53	5.85
20	3028	DISCHARGING	28-10-25 09:14:25	28-10-25 10:20:04	65.64	85.2	70.4	99.6	62.35	64.48	96.59
20	3029	DISCHARGING	28-10-25 10:34:42	28-10-25 12:06:19	91.61	67.2	48.0	99.6	80.89	80.19	99.14
20	3030	DISCHARGING	28-10-25 12:40:07	28-10-25 13:57:25	77.3	45.2	42.0	99.6	13.48	12.08	89.57
20	3031	DISCHARGING	28-10-25 14:12:21	28-10-25 14:25:52	13.52	41.6	41.2	99.6	1.68	9.38	-356.75
20	3032	CHARGING	28-10-25 14:25:53	28-10-25 14:49:47	23.9	41.2	55.2	99.6	58.98	62.47	94.09
20	3033	DISCHARGING	28-10-25 14:49:48	28-10-25 14:49:55	0.11	55.2	55.2	99.6	0.0	0.03	nan
20	3034	DISCHARGING	28-10-25 14:55:06	28-10-25 15:13:41	18.58	55.2	55.2	99.6	0.0	4.97	nan
20	3037	CHARGING	28-10-25 15:17:31	28-10-25 16:22:03	64.55	55.2	90.0	99.6	146.62	166.08	86.72
20	3041	CHARGING	28-10-25 16:25:45	28-10-25 16:28:51	3.09	90.0	90.0	99.6	0.0	1.59	nan
20	3043	CHARGING	28-10-25 16:28:53	28-10-25 16:31:54	3.02	90.0	90.4	99.6	1.68	0.41	24.38
20	3044	DISCHARGING	28-10-25 16:31:55	28-10-25 19:33:19	181.41	90.4	72.0	99.6	77.52	75.98	98.01
20	3046	CHARGING	28-10-25 19:53:08	28-10-25 20:27:16	34.13	70.8	100.0	99.6	123.02	98.72	80.25
20	3047	DISCHARGING	28-10-25 20:27:17	28-10-25 21:25:48	58.51	100.0	89.6	99.6	43.82	42.84	97.78
20	3048	DISCHARGING	28-10-25 21:34:07	29-10-25 00:18:46	164.65	88.4	64.8	99.6	99.43	101.57	97.84

Vehicle 20 – Session SoC Accuracy (Page 9/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
20	3049	DISCHARGING	29-10-25 00:27:08	29-10-25 00:45:17	18.15	63.6	61.2	99.6	10.11	11.13	89.97
20	3050	DISCHARGING	29-10-25 01:03:14	29-10-25 01:10:59	7.75	60.0	59.2	99.6	3.37	2.84	84.42
20	3051	DISCHARGING	29-10-25 01:16:01	29-10-25 01:49:02	33.01	58.8	56.0	99.6	11.8	12.82	91.36
20	3052	DISCHARGING	29-10-25 02:02:01	29-10-25 03:26:31	84.5	54.8	52.4	99.6	10.11	5.98	59.15
20	3053	DISCHARGING	29-10-25 03:37:52	29-10-25 06:08:58	151.1	52.4	51.2	99.6	5.06	2.07	40.9
20	3058	DISCHARGING	29-10-25 08:35:08	29-10-25 10:36:58	121.82	51.2	48.8	99.6	10.11	7.96	78.72
20	3059	CHARGING	29-10-25 10:36:59	29-10-25 10:58:31	21.54	48.8	65.2	99.6	69.1	73.12	94.17
20	3060	CHARGING	29-10-25 11:18:02	29-10-25 11:25:07	7.08	79.6	80.8	99.6	5.06	15.13	-99.27
20	3061	CHARGING	29-10-25 11:30:08	29-10-25 12:10:50	40.7	82.8	100.0	99.6	72.46	69.22	95.52
20	3062	DISCHARGING	29-10-25 12:10:51	29-10-25 12:13:55	3.06	100.0	100.0	99.6	0.0	0.05	nan
20	3063	DISCHARGING	29-10-25 12:44:42	29-10-25 16:55:53	251.18	100.0	84.4	99.6	65.72	62.53	95.14
20	3064	DISCHARGING	29-10-25 17:07:57	29-10-25 17:19:30	11.56	82.8	81.2	99.6	6.74	6.3	93.5
20	3065	DISCHARGING	29-10-25 17:26:10	29-10-25 21:01:19	215.14	80.8	40.0	99.6	171.89	177.49	96.75
20	3066	CHARGING	29-10-25 21:01:20	29-10-25 21:45:52	44.53	40.0	60.0	99.6	84.26	89.69	93.56
20	3067	DISCHARGING	29-10-25 21:45:53	29-10-25 21:59:36	13.71	60.0	56.0	99.6	16.85	12.86	76.29
20	3068	DISCHARGING	29-10-25 22:04:36	30-10-25 00:10:26	125.82	54.4	37.6	99.6	70.78	69.9	98.76
20	3069	CHARGING	30-10-25 00:12:05	30-10-25 02:30:16	138.19	37.6	86.0	99.6	203.91	234.88	84.82
20	3070	DISCHARGING	30-10-25 02:30:17	30-10-25 02:44:27	14.17	86.0	84.8	99.6	5.06	5.0	98.85
20	3071	DISCHARGING	30-10-25 03:10:55	30-10-25 05:38:43	147.81	82.0	65.6	99.6	69.1	67.91	98.29
20	3074	CHARGING	30-10-25 05:39:48	30-10-25 06:11:59	32.18	65.6	92.0	99.6	111.22	119.34	92.71
20	3075	DISCHARGING	30-10-25 06:12:00	30-10-25 09:59:47	227.79	92.0	52.8	99.6	165.15	169.56	97.33
20	3076	DISCHARGING	30-10-25 10:11:25	30-10-25 10:31:43	20.31	50.8	48.0	99.6	11.8	14.73	75.12
20	3077	DISCHARGING	30-10-25 10:43:34	30-10-25 12:56:35	133.02	46.8	36.8	99.6	42.13	38.25	90.79
20	3078	DISCHARGING	30-10-25 13:14:49	30-10-25 13:48:58	34.16	35.6	34.0	99.6	6.74	6.48	96.08
20	3081	CHARGING	30-10-25 13:53:01	30-10-25 13:53:33	0.52	34.0	34.0	99.6	0.0	0.01	nan
20	3082	CHARGING	30-10-25 13:59:53	30-10-25 14:44:45	44.87	34.8	43.2	99.6	35.39	35.33	99.83
20	3083	DISCHARGING	30-10-25 14:44:47	30-10-25 14:48:05	3.3	43.2	43.2	99.6	0.0	1.61	nan
20	3084	CHARGING	30-10-25 14:48:09	30-10-25 14:48:47	0.64	43.2	43.2	99.6	0.0	1.76	nan
20	3086	CHARGING	30-10-25 14:48:49	30-10-25 15:45:48	56.98	42.8	91.2	99.6	203.91	212.08	96.0
20	3087	DISCHARGING	30-10-25 15:45:51	30-10-25 19:17:46	211.92	91.2	72.4	99.6	79.21	75.79	95.69

Vehicle 20 — Session SoC Accuracy (Page 10/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
20	3088	DISCHARGING	30-10-25 19:22:51	30-10-25 21:19:03	116.2	71.2	50.0	99.6	89.32	88.25	98.81
20	3089	CHARGING	30-10-25 21:20:24	30-10-25 22:10:10	49.76	50.0	86.4	99.6	153.36	170.64	88.73
20	3090	DISCHARGING	30-10-25 22:10:12	31-10-25 00:24:54	134.71	91.2	56.4	99.6	146.62	151.33	96.78
20	3091	DISCHARGING	31-10-25 00:41:28	31-10-25 00:45:28	4.0	53.2	52.4	99.6	3.37	3.94	82.94
20	3092	DISCHARGING	31-10-25 01:02:02	31-10-25 02:28:55	86.9	49.6	40.8	99.6	37.08	29.01	78.25
20	3093	DISCHARGING	31-10-25 02:35:50	31-10-25 03:03:50	28.0	40.8	40.0	99.6	3.37	1.57	46.67
20	3094	CHARGING	31-10-25 03:03:51	31-10-25 04:03:39	59.79	40.0	71.6	99.6	133.13	140.57	94.42
20	3095	CHARGING	31-10-25 04:10:18	31-10-25 04:18:22	8.07	74.8	78.8	99.6	16.85	21.28	73.72
20	3096	CHARGING	31-10-25 04:24:59	31-10-25 04:40:03	15.06	80.4	86.0	99.6	23.59	38.0	38.95
20	3097	CHARGING	31-10-25 04:46:22	31-10-25 05:01:29	15.12	88.8	100.0	99.6	47.19	16.98	35.99
20	3100	DISCHARGING	31-10-25 06:40:51	31-10-25 06:55:08	14.28	100.0	99.2	99.6	3.37	1.48	44.04
20	3101	DISCHARGING	31-10-25 09:23:29	31-10-25 10:58:24	94.92	99.2	97.6	99.6	6.74	5.85	86.79
20	3102	DISCHARGING	31-10-25 11:11:27	31-10-25 11:13:40	2.22	97.6	97.6	99.6	0.0	0.14	nan
20	3104	DISCHARGING	31-10-25 11:57:39	31-10-25 11:58:34	0.92	97.6	97.6	99.6	0.0	0.04	nan
20	3105	DISCHARGING	31-10-25 12:25:06	31-10-25 13:18:00	52.9	97.6	94.4	99.6	13.48	11.96	88.73
20	3106	DISCHARGING	31-10-25 13:28:50	31-10-25 13:30:10	1.33	93.6	93.6	99.6	0.0	0.14	nan
20	3107	DISCHARGING	31-10-25 13:41:46	31-10-25 15:07:06	85.34	93.6	88.8	99.6	20.22	16.2	80.11
20	3108	DISCHARGING	31-10-25 15:12:16	31-10-25 15:36:18	24.03	88.4	87.2	99.6	5.06	4.11	81.23
20	3109	DISCHARGING	31-10-25 15:44:36	31-10-25 16:16:31	31.92	87.2	86.0	99.6	5.06	3.34	66.14
20	3110	DISCHARGING	31-10-25 16:26:44	31-10-25 17:16:52	50.12	84.4	79.6	99.6	20.22	21.76	92.39
20	3111	CHARGING	31-10-25 17:26:51	31-10-25 17:58:42	31.86	80.0	90.8	99.6	45.5	66.15	54.62
20	3112	DISCHARGING	31-10-25 17:58:43	31-10-25 18:29:58	31.25	90.8	86.0	99.6	20.22	19.65	97.18

Vehicle 25 – Session SoC Accuracy (Page 1/8)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
25	3113	DISCHARGING	14-10-25 10:58:49	14-10-25 18:10:36	431.78	96.4	85.6	100.0	45.68	38.06	83.31
25	3114	DISCHARGING	14-10-25 18:34:47	14-10-25 18:39:04	4.28	83.6	82.8	100.0	3.38	3.09	91.32
25	3115	DISCHARGING	14-10-25 18:48:57	14-10-25 18:55:07	6.16	81.2	80.0	100.0	5.08	5.2	97.57
25	3116	DISCHARGING	14-10-25 19:04:28	14-10-25 20:14:20	69.88	78.4	68.4	100.0	42.3	44.52	94.75
25	3117	DISCHARGING	14-10-25 20:20:23	14-10-25 22:44:37	144.24	67.6	52.4	100.0	64.3	63.15	98.22
25	3119	DISCHARGING	15-10-25 02:10:01	15-10-25 02:25:45	15.72	52.0	51.6	100.0	1.69	1.05	61.96
25	3121	DISCHARGING	15-10-25 02:42:03	15-10-25 02:45:19	3.26	51.6	51.6	100.0	0.0	9.73	nan
25	3122	CHARGING	15-10-25 02:45:20	15-10-25 03:04:16	18.94	51.6	65.6	100.0	59.22	61.7	95.82
25	3123	CHARGING	15-10-25 03:10:19	15-10-25 03:19:16	8.96	70.0	76.8	100.0	28.76	34.37	80.5
25	3124	CHARGING	15-10-25 03:38:29	15-10-25 03:59:28	20.98	91.6	100.0	100.0	35.53	49.03	62.0
25	3125	CHARGING	15-10-25 04:33:59	15-10-25 04:34:06	0.13	100.0	100.0	100.0	0.0	10.3	nan
25	3126	DISCHARGING	15-10-25 04:34:07	15-10-25 04:36:08	2.02	100.0	99.6	100.0	1.69	0.15	9.07
25	3127	DISCHARGING	15-10-25 14:27:53	15-10-25 16:51:38	143.75	99.6	83.2	100.0	69.37	65.54	94.48
25	3128	DISCHARGING	15-10-25 17:04:50	15-10-25 19:18:25	133.6	82.0	72.0	100.0	42.3	41.87	98.99
25	3129	DISCHARGING	15-10-25 19:25:03	15-10-25 19:31:46	6.73	71.6	71.2	100.0	1.69	2.72	39.2
25	3130	DISCHARGING	15-10-25 19:42:46	15-10-25 20:07:56	25.18	70.4	70.4	100.0	0.0	0.21	nan
25	3132	CHARGING	15-10-25 20:14:15	15-10-25 21:57:22	103.12	70.4	78.8	100.0	35.53	60.74	29.05
25	3140	DISCHARGING	16-10-25 04:48:16	16-10-25 06:25:40	97.39	78.8	74.8	100.0	16.92	15.4	90.99
25	3141	DISCHARGING	16-10-25 06:37:47	16-10-25 08:50:59	133.2	74.8	72.8	100.0	8.46	1.58	18.63
25	3142	DISCHARGING	16-10-25 08:57:02	16-10-25 09:02:18	5.27	72.8	72.8	100.0	0.0	0.0	nan
25	3143	DISCHARGING	16-10-25 09:10:32	16-10-25 14:27:37	317.08	72.4	66.4	100.0	25.38	12.46	49.09
25	3144	DISCHARGING	16-10-25 16:03:16	16-10-25 16:05:19	2.05	66.4	66.4	100.0	0.0	0.8	nan
25	3145	DISCHARGING	17-10-25 08:44:18	17-10-25 08:50:44	6.43	66.4	66.0	100.0	1.69	4.31	-54.72
25	3149	CHARGING	17-10-25 09:14:46	17-10-25 09:24:19	9.55	66.0	69.2	100.0	13.54	9.05	66.88
25	3150	CHARGING	17-10-25 09:44:05	17-10-25 10:23:10	39.09	78.0	78.0	100.0	0.0	0.16	nan
25	3152	CHARGING	17-10-25 10:23:12	17-10-25 13:00:39	157.44	77.6	89.2	100.0	49.07	76.69	43.7
25	3153	DISCHARGING	17-10-25 13:00:40	17-10-25 13:45:07	44.45	89.2	88.4	100.0	3.38	1.73	51.22
25	3155	DISCHARGING	17-10-25 13:46:57	17-10-25 13:47:02	0.09	88.4	88.4	100.0	0.0	0.0	nan
25	3156	CHARGING	17-10-25 13:47:04	17-10-25 14:16:51	29.8	88.4	100.0	100.0	49.07	16.36	33.35
25	3161	DISCHARGING	17-10-25 14:41:43	17-10-25 14:47:05	5.36	100.0	99.6	100.0	1.69	0.42	25.0

Vehicle 25 – Session SoC Accuracy (Page 2/8)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
25	3163	CHARGING	17-10-25 15:03:01	17-10-25 15:14:55	11.9	99.6	100.0	100.0	1.69	2.65	43.12
25	3164	DISCHARGING	17-10-25 15:14:55	17-10-25 15:14:55	0.0	100.0	100.0	100.0	0.0	0.0	nan
25	3165	CHARGING	17-10-25 15:14:56	17-10-25 15:15:39	0.73	99.6	100.0	100.0	1.69	0.14	8.57
25	3167	DISCHARGING	17-10-25 15:28:45	17-10-25 15:31:54	3.14	100.0	99.6	100.0	1.69	0.8	47.02
25	3168	DISCHARGING	17-10-25 16:29:09	17-10-25 17:56:42	87.56	99.6	94.0	100.0	23.69	10.72	45.26
25	3169	DISCHARGING	17-10-25 18:09:54	17-10-25 18:27:37	17.71	92.8	92.4	100.0	1.69	0.28	16.45
25	3170	DISCHARGING	17-10-25 18:34:14	17-10-25 19:06:54	32.68	92.0	88.8	100.0	13.54	15.53	85.24
25	3171	DISCHARGING	17-10-25 19:31:38	17-10-25 21:21:59	110.34	86.8	71.6	100.0	64.3	59.17	92.02
25	3172	DISCHARGING	17-10-25 21:56:02	17-10-25 22:00:25	4.38	68.0	67.6	100.0	1.69	5.73	-138.78
25	3173	DISCHARGING	17-10-25 22:11:59	17-10-25 22:12:32	0.56	64.4	64.4	100.0	0.0	2.04	nan
25	3174	DISCHARGING	17-10-25 22:43:20	17-10-25 23:03:32	20.21	59.2	56.4	100.0	11.84	10.55	89.05
25	3176	CHARGING	17-10-25 23:16:23	17-10-25 23:19:50	3.45	56.4	58.0	100.0	6.77	8.92	68.24
25	3178	CHARGING	17-10-25 23:24:56	17-10-25 23:29:38	4.7	58.0	60.8	100.0	11.84	13.31	87.62
25	3179	CHARGING	17-10-25 23:38:59	18-10-25 00:00:48	21.82	68.0	85.6	100.0	74.45	74.04	99.45
25	3180	DISCHARGING	18-10-25 00:00:51	18-10-25 00:17:05	16.24	85.6	82.0	100.0	15.23	16.21	93.57
25	3181	DISCHARGING	18-10-25 00:23:41	18-10-25 03:29:39	185.96	80.8	47.6	100.0	140.44	130.36	92.83
25	3182	DISCHARGING	18-10-25 03:36:16	18-10-25 03:42:23	6.11	47.2	46.4	100.0	3.38	2.86	84.61
25	3183	DISCHARGING	18-10-25 04:05:28	18-10-25 04:15:57	10.48	44.8	44.8	100.0	0.0	0.75	nan
25	3184	DISCHARGING	18-10-25 05:58:49	18-10-25 06:13:53	15.07	44.8	44.0	100.0	3.38	1.04	30.68
25	3185	CHARGING	18-10-25 06:14:29	18-10-25 06:23:43	9.24	44.0	50.0	100.0	25.38	27.67	90.96
25	3186	CHARGING	18-10-25 06:58:17	18-10-25 07:38:21	40.06	72.0	95.2	100.0	98.14	113.7	84.15
25	3187	CHARGING	18-10-25 07:48:14	18-10-25 07:54:06	5.87	98.8	100.0	100.0	5.08	5.0	98.51
25	3189	DISCHARGING	18-10-25 08:08:19	18-10-25 08:14:38	6.31	100.0	99.6	100.0	1.69	0.21	12.44
25	3192	DISCHARGING	18-10-25 09:33:02	18-10-25 10:06:47	33.76	99.2	98.8	100.0	1.69	0.28	16.52
25	3199	DISCHARGING	18-10-25 12:24:50	18-10-25 14:27:44	122.9	98.4	93.2	100.0	22.0	17.02	77.38
25	3200	DISCHARGING	18-10-25 14:35:59	18-10-25 16:57:07	141.13	92.8	84.4	100.0	35.53	28.8	81.06
25	3201	DISCHARGING	18-10-25 17:04:50	18-10-25 17:22:19	17.48	84.0	83.2	100.0	3.38	4.12	78.15
25	3202	DISCHARGING	18-10-25 17:42:08	18-10-25 18:08:10	26.05	81.6	78.4	100.0	13.54	13.35	98.65
25	3203	DISCHARGING	18-10-25 18:24:40	18-10-25 18:44:30	19.83	77.6	76.4	100.0	5.08	2.97	58.58
25	3204	CHARGING	18-10-25 18:44:32	18-10-25 19:11:01	26.49	76.4	90.0	100.0	57.53	88.5	46.15

Vehicle 25 – Session SoC Accuracy (Page 3/8)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
25	3205	DISCHARGING	18-10-25 19:11:02	18-10-25 19:58:17	47.25	90.0	82.4	100.0	32.15	32.15	100.0
25	3206	DISCHARGING	18-10-25 20:19:10	18-10-25 21:39:11	80.02	79.6	66.4	100.0	55.84	59.39	93.63
25	3207	DISCHARGING	18-10-25 21:50:11	18-10-25 23:36:02	105.85	64.8	50.0	100.0	62.6	63.86	97.99
25	3208	DISCHARGING	18-10-25 23:44:18	18-10-25 23:45:26	1.13	49.6	49.2	100.0	1.69	0.82	48.68
25	3209	DISCHARGING	19-10-25 00:11:50	19-10-25 00:28:14	16.4	46.4	44.8	100.0	6.77	8.54	73.86
25	3210	DISCHARGING	19-10-25 00:34:51	19-10-25 00:58:57	24.11	44.4	42.8	100.0	6.77	7.13	94.63
25	3212	CHARGING	19-10-25 01:23:01	19-10-25 02:31:47	68.77	42.8	100.0	100.0	241.96	212.29	87.74
25	3214	DISCHARGING	19-10-25 02:39:25	19-10-25 02:45:02	5.62	100.0	99.6	100.0	1.69	0.11	6.65
25	3216	DISCHARGING	19-10-25 06:03:23	19-10-25 06:11:57	8.57	99.6	99.6	100.0	0.0	0.77	nan
25	3217	DISCHARGING	19-10-25 06:20:13	19-10-25 06:25:28	5.25	99.2	99.2	100.0	0.0	0.52	nan
25	3218	DISCHARGING	19-10-25 09:59:17	19-10-25 10:36:58	37.69	99.2	98.0	100.0	5.08	2.23	43.9
25	3220	DISCHARGING	19-10-25 12:43:30	19-10-25 13:18:10	34.67	98.0	97.6	100.0	1.69	0.47	27.93
25	3221	DISCHARGING	19-10-25 13:42:54	19-10-25 18:01:07	258.22	95.6	71.6	100.0	101.52	101.18	99.67
25	3222	DISCHARGING	19-10-25 18:27:30	19-10-25 19:00:50	33.34	67.2	61.2	100.0	25.38	28.68	86.98
25	3223	CHARGING	19-10-25 19:02:43	19-10-25 19:46:41	43.96	61.2	91.2	100.0	126.9	141.57	88.44
25	3224	DISCHARGING	19-10-25 19:46:42	19-10-25 20:35:26	48.74	91.2	79.6	100.0	49.07	50.74	96.58
25	3225	DISCHARGING	19-10-25 20:46:59	19-10-25 21:00:34	13.57	77.2	74.0	100.0	13.54	13.31	98.35
25	3226	DISCHARGING	19-10-25 21:23:39	19-10-25 23:07:53	104.22	69.2	49.2	100.0	84.6	85.11	99.39
25	3227	DISCHARGING	19-10-25 23:24:23	20-10-25 01:16:46	112.39	48.4	48.0	100.0	1.69	0.76	45.05
25	3229	DISCHARGING	20-10-25 01:55:50	20-10-25 01:58:43	2.88	48.0	47.6	100.0	1.69	0.17	10.14
25	3230	CHARGING	20-10-25 01:59:06	20-10-25 02:25:16	26.15	47.6	62.8	100.0	64.3	66.93	95.91
25	3231	CHARGING	20-10-25 02:35:09	20-10-25 03:30:29	55.34	68.8	98.8	100.0	126.9	117.7	92.75
25	3233	DISCHARGING	20-10-25 04:14:50	20-10-25 04:36:12	21.37	100.0	99.6	100.0	1.69	0.2	11.53
25	3234	DISCHARGING	20-10-25 07:32:11	20-10-25 08:09:17	37.11	99.6	98.0	100.0	6.77	4.68	69.14
25	3236	DISCHARGING	20-10-25 11:08:03	20-10-25 11:43:16	35.21	98.0	97.6	100.0	1.69	0.48	28.08
25	3237	DISCHARGING	20-10-25 13:43:15	20-10-25 14:56:24	73.16	97.6	96.8	100.0	3.38	0.38	11.07
25	3238	DISCHARGING	20-10-25 15:29:24	20-10-25 16:15:34	46.17	93.6	92.0	100.0	6.77	4.77	70.47
25	3239	DISCHARGING	20-10-25 16:28:13	20-10-25 19:39:30	191.28	91.2	79.6	100.0	49.07	46.29	94.34
25	3240	CHARGING	20-10-25 19:39:30	20-10-25 19:44:04	4.57	79.6	80.0	100.0	1.69	1.2	71.13
25	3242	CHARGING	20-10-25 19:44:12	20-10-25 20:10:34	26.38	80.0	90.8	100.0	45.68	84.36	15.34

Vehicle 25 – Session SoC Accuracy (Page 4/8)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
25	3243	DISCHARGING	20-10-25 20:10:35	20-10-25 21:34:56	84.35	90.8	78.8	100.0	50.76	52.95	95.68
25	3244	DISCHARGING	20-10-25 21:43:12	20-10-25 22:49:31	66.32	77.2	66.8	99.72	43.87	45.44	96.42
25	3245	DISCHARGING	20-10-25 23:12:03	20-10-25 23:52:46	40.72	63.6	58.4	99.6	21.91	23.44	93.01
25	3246	DISCHARGING	21-10-25 00:04:20	21-10-25 00:39:07	34.79	57.6	52.8	99.6	20.22	19.61	96.98
25	3247	DISCHARGING	21-10-25 00:51:45	21-10-25 02:06:46	75.01	52.0	46.4	99.6	23.59	24.32	96.92
25	3248	CHARGING	21-10-25 02:06:47	21-10-25 04:41:31	154.74	46.4	100.0	99.6	225.82	207.41	91.85
25	3249	DISCHARGING	21-10-25 04:41:31	21-10-25 04:41:40	0.14	100.0	100.0	99.6	0.0	0.0	nan
25	3252	DISCHARGING	21-10-25 07:43:47	21-10-25 07:45:50	2.05	100.0	99.6	99.6	1.68	0.19	11.03
25	3254	DISCHARGING	21-10-25 12:11:19	21-10-25 13:06:04	54.75	99.6	98.8	99.6	3.37	1.16	34.38
25	3255	DISCHARGING	21-10-25 14:53:53	21-10-25 19:24:38	270.74	98.8	78.0	99.6	87.63	84.6	96.54
25	3256	DISCHARGING	21-10-25 19:39:36	21-10-25 20:01:14	21.63	74.4	69.2	99.6	21.91	23.29	93.67
25	3257	DISCHARGING	21-10-25 20:17:47	21-10-25 20:57:14	39.45	66.0	58.4	99.6	32.02	32.88	97.31
25	3258	CHARGING	21-10-25 20:57:15	21-10-25 21:22:57	25.69	58.4	74.4	99.6	67.41	72.66	92.21
25	3259	CHARGING	21-10-25 21:28:44	21-10-25 21:41:28	12.75	74.4	83.6	99.6	38.76	41.88	91.94
25	3260	DISCHARGING	21-10-25 21:52:21	21-10-25 21:55:40	3.31	87.2	86.4	99.6	3.37	4.06	79.58
25	3261	DISCHARGING	21-10-25 22:38:36	22-10-25 02:25:00	226.4	76.8	48.0	99.6	121.34	125.15	96.85
25	3262	DISCHARGING	22-10-25 02:42:56	22-10-25 03:04:36	21.67	47.6	47.2	99.6	1.68	0.47	27.7
25	3264	DISCHARGING	22-10-25 03:48:05	22-10-25 04:48:43	60.63	46.8	46.8	99.6	0.0	0.03	nan
25	3265	CHARGING	22-10-25 04:48:45	22-10-25 05:34:08	45.39	46.8	73.6	99.6	112.91	121.66	92.25
25	3266	CHARGING	22-10-25 05:43:45	22-10-25 06:19:25	35.67	80.0	100.0	99.6	84.26	89.78	93.45
25	3267	CHARGING	22-10-25 06:40:24	22-10-25 06:40:38	0.23	100.0	100.0	99.6	0.0	6.29	nan
25	3271	DISCHARGING	22-10-25 07:18:06	22-10-25 07:27:41	9.58	100.0	99.6	99.6	1.68	0.37	22.13
25	3272	DISCHARGING	22-10-25 11:51:51	22-10-25 16:42:29	290.63	99.6	91.6	99.6	33.7	25.94	76.95
25	3273	DISCHARGING	22-10-25 16:55:26	22-10-25 17:46:47	51.35	91.2	89.2	99.6	8.43	7.74	91.79
25	3274	DISCHARGING	22-10-25 18:16:16	22-10-25 19:39:23	83.11	87.6	77.6	99.6	42.13	41.14	97.64
25	3275	CHARGING	22-10-25 19:39:24	22-10-25 19:40:02	0.64	77.6	77.6	99.6	0.0	0.06	nan
25	3277	CHARGING	22-10-25 19:40:55	22-10-25 20:01:46	20.86	77.2	83.6	99.6	26.96	36.83	63.41
25	3278	DISCHARGING	22-10-25 20:01:48	22-10-25 20:05:35	3.79	83.6	83.2	99.6	1.68	0.23	13.39
25	3279	CHARGING	22-10-25 20:05:38	22-10-25 20:27:52	22.22	83.2	90.0	99.6	28.65	46.72	36.91
25	3280	DISCHARGING	22-10-25 20:27:53	22-10-25 21:16:29	48.61	90.0	81.2	99.6	37.08	36.84	99.36

Vehicle 25 – Session SoC Accuracy (Page 5/8)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
25	3281	DISCHARGING	22-10-25 21:44:35	22-10-25 23:33:01	108.43	81.2	60.0	99.6	89.32	70.56	78.99
25	3282	DISCHARGING	22-10-25 23:56:08	23-10-25 00:08:28	12.32	58.4	56.0	99.6	10.11	11.94	81.89
25	3283	DISCHARGING	23-10-25 00:16:46	23-10-25 02:47:20	150.57	55.2	41.6	99.6	57.3	57.35	99.91
25	3286	CHARGING	23-10-25 02:50:34	23-10-25 02:54:16	3.69	41.6	42.8	99.6	5.06	6.2	77.28
25	3287	CHARGING	23-10-25 03:02:15	23-10-25 04:59:27	117.2	46.4	100.0	99.6	225.82	213.35	94.48
25	3291	DISCHARGING	23-10-25 05:20:40	23-10-25 05:56:21	35.69	100.0	98.8	99.6	5.06	3.56	70.4
25	3292	DISCHARGING	23-10-25 06:28:17	23-10-25 06:31:21	3.06	98.8	98.8	99.6	0.0	1.32	nan
25	3293	DISCHARGING	23-10-25 11:30:23	23-10-25 11:31:06	0.73	98.8	98.8	99.6	0.0	0.02	nan
25	3294	DISCHARGING	23-10-25 13:45:05	23-10-25 18:14:29	269.4	98.8	85.6	99.6	55.61	47.92	86.17
25	3295	DISCHARGING	23-10-25 19:11:03	23-10-25 19:45:00	33.94	78.4	71.6	99.6	28.65	28.44	99.28
25	3296	DISCHARGING	23-10-25 19:50:00	23-10-25 21:11:49	81.82	70.8	57.2	99.6	57.3	54.4	94.94
25	3297	CHARGING	23-10-25 21:11:50	23-10-25 21:26:52	15.02	57.2	67.6	99.6	43.82	45.48	96.2
25	3298	CHARGING	23-10-25 21:43:24	23-10-25 21:59:28	16.08	80.0	91.2	99.6	47.19	58.41	76.22
25	3299	DISCHARGING	23-10-25 21:59:30	24-10-25 04:22:33	383.04	91.2	48.0	99.6	182.0	182.32	99.83
25	3301	CHARGING	24-10-25 04:31:47	24-10-25 06:11:09	99.37	48.0	100.0	99.6	219.08	222.56	98.41
25	3302	DISCHARGING	24-10-25 06:40:39	24-10-25 06:55:23	14.74	100.0	99.6	99.6	1.68	0.52	31.02
25	3303	DISCHARGING	24-10-25 08:42:16	24-10-25 09:15:20	33.08	99.6	98.4	99.6	5.06	2.56	50.73
25	3305	DISCHARGING	24-10-25 09:46:28	24-10-25 09:49:52	3.41	98.4	98.4	99.6	0.0	0.19	nan
25	3306	DISCHARGING	24-10-25 10:30:13	24-10-25 10:42:43	12.5	98.4	98.0	99.6	1.68	0.34	19.99
25	3307	DISCHARGING	24-10-25 11:09:10	24-10-25 14:47:19	218.16	98.0	90.4	99.6	32.02	27.9	87.13
25	3308	DISCHARGING	24-10-25 14:58:00	24-10-25 16:16:23	78.4	90.0	81.2	99.6	37.08	37.29	99.43
25	3309	DISCHARGING	24-10-25 16:21:23	24-10-25 16:29:42	8.3	81.2	81.2	99.6	0.0	0.45	nan
25	3310	CHARGING	24-10-25 16:29:43	24-10-25 16:49:45	20.03	81.2	87.2	99.6	25.28	37.79	50.5
25	3311	DISCHARGING	24-10-25 16:49:46	24-10-25 21:23:23	273.62	87.2	45.2	99.6	176.95	175.79	99.35
25	3312	DISCHARGING	24-10-25 21:53:40	24-10-25 22:03:49	10.15	42.4	41.2	99.6	5.06	4.8	94.85
25	3313	DISCHARGING	24-10-25 22:12:09	24-10-25 23:06:56	54.78	40.8	38.8	99.6	8.43	6.58	78.04
25	3314	CHARGING	24-10-25 23:06:58	25-10-25 00:41:02	94.07	38.8	100.0	99.6	257.84	267.64	96.2
25	3316	DISCHARGING	25-10-25 01:30:53	25-10-25 01:37:55	7.03	100.0	99.6	99.6	1.68	1.18	70.1
25	3317	DISCHARGING	25-10-25 01:58:47	25-10-25 03:26:18	87.51	99.6	95.2	99.6	18.54	15.9	85.75
25	3318	DISCHARGING	25-10-25 03:47:27	25-10-25 04:52:19	64.87	94.4	90.4	99.6	16.85	13.94	82.7

Vehicle 25 – Session SoC Accuracy (Page 6/8)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
25	3319	DISCHARGING	25-10-25 05:05:14	25-10-25 05:07:27	2.21	89.6	89.6	99.6	0.0	0.87	nan
25	3320	DISCHARGING	25-10-25 05:13:49	25-10-25 07:54:51	161.03	88.8	59.2	99.6	124.71	126.4	98.64
25	3321	CHARGING	25-10-25 08:19:49	25-10-25 09:10:23	50.55	54.8	91.2	99.6	153.36	184.14	79.93
25	3322	DISCHARGING	25-10-25 09:10:23	25-10-25 11:23:38	133.24	91.2	58.4	99.6	138.19	141.07	97.92
25	3323	DISCHARGING	25-10-25 11:28:38	25-10-25 12:15:23	46.76	58.0	52.4	99.6	23.59	25.3	92.75
25	3324	DISCHARGING	25-10-25 12:22:56	25-10-25 12:23:49	0.9	51.2	51.2	99.6	0.0	2.88	nan
25	3325	DISCHARGING	25-10-25 12:30:33	25-10-25 14:17:11	106.63	51.2	46.0	99.6	21.91	19.17	87.52
25	3326	CHARGING	25-10-25 14:27:05	25-10-25 15:20:25	53.32	46.8	80.0	99.6	139.87	156.88	87.84
25	3327	CHARGING	25-10-25 15:28:24	25-10-25 15:45:33	17.15	82.8	94.0	99.6	47.19	42.56	90.19
25	3328	DISCHARGING	25-10-25 15:45:35	25-10-25 17:33:57	108.37	94.0	86.0	99.6	33.7	28.44	84.4
25	3329	DISCHARGING	25-10-25 17:39:09	25-10-25 17:58:01	18.87	86.0	84.8	99.6	5.06	4.5	89.04
25	3330	DISCHARGING	25-10-25 18:12:46	25-10-25 18:34:41	21.91	84.4	83.6	99.6	3.37	1.34	39.6
25	3331	DISCHARGING	25-10-25 18:57:49	25-10-25 20:19:22	81.55	81.6	74.8	99.6	28.65	29.81	95.96
25	3332	CHARGING	25-10-25 20:19:24	25-10-25 20:20:06	0.71	74.8	74.8	99.6	0.0	1.56	nan
25	3334	CHARGING	25-10-25 20:20:08	25-10-25 20:49:12	29.07	74.8	90.8	99.6	67.41	85.82	72.69
25	3335	DISCHARGING	25-10-25 20:49:16	26-10-25 03:08:28	379.21	90.8	46.4	99.6	187.06	191.94	97.39
25	3336	CHARGING	26-10-25 03:10:49	26-10-25 05:14:04	123.26	46.4	100.0	99.6	225.82	207.16	91.74
25	3339	DISCHARGING	26-10-25 05:43:19	26-10-25 07:12:45	89.43	100.0	98.4	99.6	6.74	2.36	35.02
25	3340	DISCHARGING	26-10-25 07:20:58	26-10-25 08:16:15	55.29	98.4	98.0	99.6	1.68	1.52	89.89
25	3342	DISCHARGING	26-10-25 09:33:16	26-10-25 12:41:05	187.82	98.0	97.2	99.6	3.37	1.7	50.41
25	3343	DISCHARGING	26-10-25 13:09:36	26-10-25 13:56:57	47.36	97.2	94.8	99.6	10.11	9.05	89.53
25	3344	DISCHARGING	26-10-25 14:10:11	26-10-25 14:20:16	10.1	94.0	93.2	99.6	3.37	1.13	33.66
25	3345	DISCHARGING	26-10-25 14:28:17	26-10-25 16:23:19	115.03	92.8	86.8	99.6	25.28	23.3	92.19
25	3346	DISCHARGING	26-10-25 16:39:51	26-10-25 16:49:38	9.77	83.6	82.4	99.6	5.06	5.63	88.7
25	3347	DISCHARGING	26-10-25 17:02:52	26-10-25 19:16:06	133.22	80.8	53.6	99.6	114.6	117.84	97.17
25	3348	CHARGING	26-10-25 19:17:28	26-10-25 20:10:51	53.39	53.6	91.6	99.6	160.1	180.53	87.23
25	3349	DISCHARGING	26-10-25 20:10:54	27-10-25 00:25:20	254.45	91.6	50.8	99.6	171.89	174.39	98.55
25	3350	DISCHARGING	27-10-25 00:31:33	27-10-25 00:41:20	9.79	50.8	50.8	99.6	0.0	0.01	nan
25	3353	CHARGING	27-10-25 00:46:28	27-10-25 02:07:20	80.88	50.8	90.0	99.6	165.15	198.37	79.89
25	3354	DISCHARGING	27-10-25 02:07:21	27-10-25 04:30:08	142.79	90.0	81.6	99.6	35.39	32.73	92.48

Vehicle 25 – Session SoC Accuracy (Page 7/8)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
25	3355	DISCHARGING	27-10-25 04:35:13	27-10-25 05:00:03	24.83	81.2	78.8	99.6	10.11	9.96	98.46
25	3356	DISCHARGING	27-10-25 05:19:52	27-10-25 06:04:34	44.69	76.0	71.6	99.6	18.54	19.56	94.51
25	3357	CHARGING	27-10-25 06:04:35	27-10-25 06:11:40	7.09	71.6	74.0	99.6	10.11	10.95	91.68
25	3358	DISCHARGING	27-10-25 06:11:44	27-10-25 06:13:17	1.56	74.0	74.0	99.6	0.0	1.12	nan
25	3359	CHARGING	27-10-25 06:13:18	27-10-25 06:43:44	30.43	74.0	92.4	99.6	77.52	92.5	80.68
25	3360	DISCHARGING	27-10-25 06:43:46	27-10-25 11:17:00	273.23	92.4	50.8	99.6	175.26	176.93	99.05
25	3361	DISCHARGING	27-10-25 11:33:32	27-10-25 14:35:58	182.42	50.0	40.8	99.6	38.76	36.67	94.61
25	3362	DISCHARGING	27-10-25 14:44:16	27-10-25 15:08:10	23.9	40.4	38.8	99.6	6.74	5.12	75.89
25	3363	DISCHARGING	27-10-25 15:19:32	27-10-25 15:24:55	5.39	38.4	38.4	99.6	0.0	0.66	nan
25	3365	CHARGING	27-10-25 15:38:55	27-10-25 16:41:34	62.65	38.0	84.8	99.6	197.17	212.04	92.46
25	3366	DISCHARGING	27-10-25 16:41:37	27-10-25 18:54:33	132.93	84.8	73.6	99.6	47.19	50.0	94.04
25	3367	DISCHARGING	27-10-25 19:02:33	27-10-25 22:51:58	229.42	73.2	69.6	99.6	15.17	0.76	5.02
25	3368	DISCHARGING	27-10-25 22:56:59	27-10-25 23:27:44	30.74	69.6	69.2	99.6	1.68	0.39	22.99
25	3371	DISCHARGING	28-10-25 00:44:53	28-10-25 05:01:26	256.55	68.0	65.2	99.6	11.8	0.48	4.1
25	3372	DISCHARGING	28-10-25 09:08:53	28-10-25 10:39:49	90.93	65.2	56.4	99.6	37.08	35.79	96.54
25	3374	DISCHARGING	28-10-25 11:12:14	28-10-25 11:14:43	2.47	55.6	55.6	99.6	0.0	0.05	nan
25	3379	DISCHARGING	29-10-25 06:05:11	29-10-25 06:37:35	32.41	54.8	53.2	99.6	6.74	5.84	86.72
25	3380	DISCHARGING	29-10-25 06:45:15	29-10-25 07:20:37	35.36	53.2	52.8	99.6	1.68	2.61	45.04
25	3381	DISCHARGING	29-10-25 07:41:28	29-10-25 08:38:03	56.58	52.8	46.4	99.6	26.96	24.61	91.25
25	3382	DISCHARGING	29-10-25 10:18:47	29-10-25 12:20:44	121.95	46.4	44.4	99.6	8.43	5.15	61.15
25	3383	CHARGING	29-10-25 12:20:44	29-10-25 13:05:49	45.08	44.4	59.6	99.6	64.04	67.56	94.51
25	3384	DISCHARGING	29-10-25 13:05:50	29-10-25 13:11:29	5.65	59.6	59.6	99.6	0.0	0.28	nan
25	3385	CHARGING	29-10-25 13:11:31	29-10-25 14:02:30	50.99	59.6	100.0	99.6	170.21	134.87	79.24
25	3387	CHARGING	29-10-25 14:02:32	29-10-25 14:04:08	1.61	100.0	100.0	99.6	0.0	8.8	nan
25	3388	DISCHARGING	29-10-25 14:04:09	29-10-25 16:48:35	164.42	100.0	89.6	99.6	43.82	38.89	88.76
25	3389	DISCHARGING	29-10-25 16:55:12	29-10-25 17:07:36	12.39	88.8	88.4	99.6	1.68	4.27	-53.37
25	3390	DISCHARGING	29-10-25 17:14:12	29-10-25 20:19:32	185.33	87.6	58.4	99.6	123.02	123.01	99.99
25	3391	CHARGING	29-10-25 20:19:33	29-10-25 20:50:43	31.16	58.4	80.8	99.6	94.37	105.4	88.31
25	3392	DISCHARGING	29-10-25 21:09:54	29-10-25 23:22:51	132.96	91.2	59.6	99.6	133.13	134.77	98.77
25	3393	DISCHARGING	29-10-25 23:32:49	30-10-25 00:30:37	57.81	58.8	52.4	99.6	26.96	29.63	90.13

Vehicle 25 — Session SoC Accuracy (Page 8/8)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
25	3394	DISCHARGING	30-10-25 00:36:59	30-10-25 02:03:22	86.38	51.6	46.4	99.6	21.91	22.61	96.8
25	3395	DISCHARGING	30-10-25 04:57:12	30-10-25 05:03:39	6.44	46.4	46.4	99.6	0.0	3.08	nan
25	3396	CHARGING	30-10-25 05:03:40	30-10-25 06:57:53	114.22	46.4	100.0	99.6	225.82	232.42	97.08
25	3397	DISCHARGING	30-10-25 06:57:58	30-10-25 07:17:26	19.47	100.0	99.6	99.6	1.68	0.12	7.07
25	3398	DISCHARGING	30-10-25 07:30:22	30-10-25 07:38:01	7.66	99.2	99.2	99.6	0.0	0.95	nan
25	3399	DISCHARGING	30-10-25 07:44:21	30-10-25 08:59:00	74.64	98.8	96.8	99.6	8.43	4.48	53.2
25	3400	DISCHARGING	30-10-25 09:04:50	30-10-25 09:07:55	3.07	96.8	96.8	99.6	0.0	5.13	nan
25	3401	DISCHARGING	30-10-25 09:32:01	30-10-25 10:51:38	79.61	96.8	95.2	99.6	6.74	7.8	84.3
25	3402	DISCHARGING	30-10-25 12:18:50	30-10-25 15:11:50	173.0	95.2	89.6	99.6	23.59	15.58	66.05
25	3403	DISCHARGING	30-10-25 15:23:27	30-10-25 17:21:52	118.42	88.8	84.0	99.6	20.22	16.24	80.32
25	3404	DISCHARGING	30-10-25 17:41:42	30-10-25 19:01:24	79.71	81.6	74.4	99.6	30.33	27.09	89.31
25	3407	CHARGING	30-10-25 19:03:12	30-10-25 19:34:28	31.27	74.4	90.8	99.6	69.1	107.9	43.84
25	3408	DISCHARGING	30-10-25 19:34:29	31-10-25 01:34:00	359.51	90.8	42.0	99.6	205.6	204.26	99.35
25	3411	CHARGING	31-10-25 01:34:59	31-10-25 01:48:35	13.61	42.0	53.2	99.6	47.19	49.4	95.31
25	3412	CHARGING	31-10-25 02:03:28	31-10-25 02:51:58	48.5	65.6	100.0	99.6	144.93	130.1	89.77
25	3415	DISCHARGING	31-10-25 03:42:13	31-10-25 03:49:30	7.28	100.0	99.6	99.6	1.68	0.42	24.7
25	3418	DISCHARGING	31-10-25 05:47:39	31-10-25 05:48:31	0.86	99.6	99.6	99.6	0.0	0.64	nan
25	3419	DISCHARGING	31-10-25 06:40:42	31-10-25 06:41:05	0.38	99.6	99.6	99.6	0.0	0.0	nan
25	3420	DISCHARGING	31-10-25 09:37:24	31-10-25 10:29:04	51.66	99.6	97.6	99.6	8.43	8.62	97.65
25	3421	DISCHARGING	31-10-25 12:26:26	31-10-25 12:37:29	11.05	97.6	97.2	99.6	1.68	0.46	27.07
25	3422	DISCHARGING	31-10-25 12:45:40	31-10-25 14:43:59	118.33	97.2	91.2	99.6	25.28	22.39	88.58
25	3423	DISCHARGING	31-10-25 14:49:00	31-10-25 15:17:21	28.36	91.2	89.2	99.6	8.43	7.51	89.18
25	3424	DISCHARGING	31-10-25 15:24:00	31-10-25 15:34:47	10.79	89.2	88.4	99.6	3.37	1.8	53.41
25	3425	DISCHARGING	31-10-25 16:01:14	31-10-25 18:29:58	148.74	86.8	64.8	99.6	92.69	94.82	97.7

Vehicle 27 – Session SoC Accuracy (Page 1/15)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
27	3433	DISCHARGING	01-10-25 00:30:38	01-10-25 00:45:05	14.45	48.4	46.8	99.6	6.74	5.67	84.07
27	3434	DISCHARGING	01-10-25 00:51:25	01-10-25 01:27:22	35.94	46.4	44.4	99.6	8.43	9.16	91.28
27	3439	CHARGING	01-10-25 01:57:14	01-10-25 03:29:06	91.86	44.0	100.0	99.6	235.93	238.51	98.91
27	3441	DISCHARGING	01-10-25 03:44:55	01-10-25 05:09:57	85.03	100.0	99.2	99.6	3.37	0.15	4.43
27	3443	DISCHARGING	01-10-25 11:10:52	01-10-25 12:05:39	54.78	98.4	96.8	99.6	6.74	3.46	51.29
27	3444	DISCHARGING	01-10-25 12:56:58	01-10-25 13:47:31	50.55	96.8	94.8	99.6	8.43	3.95	46.9
27	3445	DISCHARGING	01-10-25 13:55:29	01-10-25 17:02:14	186.74	94.0	83.2	99.6	45.5	41.73	91.7
27	3446	DISCHARGING	01-10-25 17:21:59	01-10-25 17:46:04	24.08	80.0	76.8	99.6	13.48	12.49	92.63
27	3447	DISCHARGING	01-10-25 17:52:57	01-10-25 18:11:17	18.34	75.2	73.2	99.6	8.43	11.39	64.83
27	3448	CHARGING	01-10-25 18:12:48	01-10-25 18:52:15	39.46	73.2	100.0	99.6	112.91	117.8	95.67
27	3449	DISCHARGING	01-10-25 18:53:11	01-10-25 19:36:36	43.4	100.0	92.8	99.6	30.33	29.59	97.53
27	3450	DISCHARGING	01-10-25 19:57:51	01-10-25 20:03:22	5.52	90.8	90.0	99.6	3.37	2.13	63.35
27	3451	DISCHARGING	01-10-25 20:11:43	02-10-25 00:36:05	264.37	88.8	54.0	99.6	146.62	146.89	99.82
27	3452	DISCHARGING	02-10-25 01:48:50	02-10-25 02:07:14	18.4	54.0	53.6	99.6	1.68	0.36	21.46
27	3453	CHARGING	02-10-25 02:12:34	02-10-25 02:19:36	7.04	53.6	58.8	99.6	21.91	22.34	98.04
27	3454	CHARGING	02-10-25 02:42:35	02-10-25 03:16:44	34.15	78.4	100.0	99.6	91.0	102.62	87.24
27	3456	DISCHARGING	02-10-25 03:25:47	02-10-25 03:52:02	26.26	100.0	99.2	99.6	3.37	2.15	63.77
27	3457	DISCHARGING	02-10-25 04:03:33	02-10-25 04:09:04	5.52	98.8	98.8	99.6	0.0	0.44	nan
27	3459	CHARGING	02-10-25 04:56:04	02-10-25 05:00:58	4.9	98.8	100.0	99.6	5.06	6.61	69.21
27	3461	DISCHARGING	02-10-25 05:36:29	02-10-25 07:56:40	140.18	100.0	95.6	99.6	18.54	13.34	71.99
27	3462	DISCHARGING	02-10-25 08:03:00	02-10-25 08:29:37	26.63	95.6	94.4	99.6	5.06	3.94	78.0
27	3463	CHARGING	02-10-25 08:29:41	02-10-25 08:47:18	17.63	94.4	100.0	99.6	23.59	23.35	98.97
27	3464	DISCHARGING	02-10-25 08:47:19	02-10-25 08:50:06	2.79	100.0	99.6	99.6	1.68	0.03	2.01
27	3466	DISCHARGING	02-10-25 12:46:15	02-10-25 16:53:17	247.03	99.6	83.6	99.6	67.41	63.41	94.07
27	3467	DISCHARGING	02-10-25 17:19:25	02-10-25 19:08:07	108.69	79.2	60.0	99.6	80.89	84.28	95.8
27	3469	DISCHARGING	02-10-25 19:10:40	02-10-25 19:12:15	1.59	60.0	60.0	99.6	0.0	0.04	nan
27	3472	CHARGING	02-10-25 19:13:45	02-10-25 19:56:31	42.76	60.0	90.8	99.6	129.76	158.51	77.85
27	3473	DISCHARGING	02-10-25 19:56:32	02-10-25 23:29:59	213.45	90.8	47.6	99.6	182.0	187.74	96.85
27	3474	DISCHARGING	02-10-25 23:38:00	02-10-25 23:59:03	21.06	47.2	46.8	99.6	1.68	1.52	90.41
27	3475	DISCHARGING	03-10-25 00:05:41	03-10-25 02:04:28	118.79	46.4	46.4	99.6	0.0	0.36	nan

Vehicle 27 – Session SoC Accuracy (Page 2/15)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
27	3476	CHARGING	03-10-25 02:04:30	03-10-25 03:17:31	73.03	46.4	97.6	99.6	215.71	221.57	97.28
27	3477	DISCHARGING	03-10-25 03:32:28	03-10-25 03:34:08	1.66	100.0	100.0	99.6	0.0	0.02	nan
27	3478	DISCHARGING	03-10-25 03:54:24	03-10-25 03:56:55	2.52	100.0	99.6	99.6	1.68	0.11	6.69
27	3479	DISCHARGING	03-10-25 12:04:49	03-10-25 14:34:38	149.81	99.6	94.4	99.6	21.91	15.94	72.75
27	3480	DISCHARGING	03-10-25 14:56:01	03-10-25 18:26:46	210.75	92.8	76.0	99.6	70.78	69.69	98.46
27	3481	CHARGING	03-10-25 18:26:47	03-10-25 18:40:37	13.83	76.0	80.0	99.6	16.85	25.43	49.08
27	3483	CHARGING	03-10-25 18:41:25	03-10-25 18:59:21	17.92	80.0	91.2	99.6	47.19	67.23	57.53
27	3484	DISCHARGING	03-10-25 18:59:24	04-10-25 00:04:41	305.28	90.8	46.4	99.6	187.06	191.37	97.7
27	3486	CHARGING	04-10-25 00:49:10	04-10-25 01:40:37	51.46	44.0	90.4	99.6	195.49	197.4	99.02
27	3487	CHARGING	04-10-25 01:45:40	04-10-25 01:54:42	9.04	95.2	100.0	99.6	20.22	13.57	67.1
27	3495	DISCHARGING	04-10-25 05:38:15	04-10-25 05:47:28	9.22	100.0	99.6	99.6	1.68	1.14	67.41
27	3496	DISCHARGING	04-10-25 06:34:29	04-10-25 06:52:10	17.68	99.6	98.8	99.6	3.37	3.12	92.7
27	3497	CHARGING	04-10-25 06:55:21	04-10-25 07:00:27	5.1	98.8	100.0	99.6	5.06	6.73	66.85
27	3498	DISCHARGING	04-10-25 07:22:17	04-10-25 07:44:07	21.83	100.0	98.8	99.6	5.06	4.17	82.51
27	3499	DISCHARGING	04-10-25 12:17:52	04-10-25 19:13:46	415.9	98.8	54.8	99.6	185.38	179.43	96.79
27	3500	CHARGING	04-10-25 19:13:50	04-10-25 19:19:05	5.25	54.8	55.2	99.6	1.68	0.84	49.64
27	3502	CHARGING	04-10-25 19:20:17	04-10-25 19:22:45	2.48	55.2	55.2	99.6	0.0	0.06	nan
27	3504	CHARGING	04-10-25 19:23:06	04-10-25 20:09:52	46.76	55.2	93.6	99.6	161.78	178.23	89.83
27	3505	DISCHARGING	04-10-25 20:09:55	04-10-25 20:15:31	5.6	93.6	93.2	99.6	1.68	1.66	98.71
27	3506	DISCHARGING	04-10-25 20:28:44	04-10-25 21:55:55	87.19	89.6	66.8	99.6	96.06	102.21	93.6
27	3507	DISCHARGING	04-10-25 22:10:48	04-10-25 23:39:07	88.32	62.4	45.6	99.6	70.78	70.86	99.89
27	3508	DISCHARGING	04-10-25 23:49:01	05-10-25 00:29:00	39.98	44.0	42.0	99.6	8.43	6.97	82.75
27	3511	CHARGING	05-10-25 00:40:54	05-10-25 02:18:42	97.81	42.0	100.0	99.6	244.36	245.83	99.4
27	3512	DISCHARGING	05-10-25 02:18:44	05-10-25 02:32:08	13.41	100.0	99.6	99.6	1.68	3.67	-17.72
27	3514	DISCHARGING	05-10-25 05:26:12	05-10-25 05:28:19	2.12	99.6	99.6	99.6	0.0	0.68	nan
27	3515	DISCHARGING	05-10-25 05:48:50	05-10-25 06:15:54	27.06	99.6	99.6	99.6	0.0	0.63	nan
27	3517	DISCHARGING	05-10-25 10:15:58	05-10-25 10:25:18	9.33	99.2	99.2	99.6	0.0	0.22	nan
27	3518	DISCHARGING	05-10-25 10:46:34	05-10-25 11:36:51	50.28	99.2	97.6	99.6	6.74	4.28	63.51
27	3522	DISCHARGING	05-10-25 13:29:15	05-10-25 14:37:02	67.78	97.6	94.4	99.6	13.48	12.36	91.68
27	3523	DISCHARGING	05-10-25 14:43:56	05-10-25 17:23:50	159.89	94.0	83.2	99.6	45.5	41.76	91.77

Vehicle 27 – Session SoC Accuracy (Page 3/15)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
27	3524	DISCHARGING	05-10-25 17:37:14	05-10-25 18:41:20	64.11	82.0	77.6	99.6	18.54	18.88	98.15
27	3527	CHARGING	05-10-25 18:43:07	05-10-25 19:03:30	20.38	77.6	84.8	99.6	30.33	69.27	-28.35
27	3529	CHARGING	05-10-25 19:03:32	05-10-25 19:16:15	12.72	84.8	90.0	99.6	21.91	31.93	54.25
27	3530	DISCHARGING	05-10-25 19:16:16	05-10-25 20:26:21	70.1	90.0	77.6	99.6	52.24	50.27	96.23
27	3531	DISCHARGING	05-10-25 20:34:41	05-10-25 21:11:28	36.78	76.4	70.0	99.6	26.96	28.09	95.82
27	3532	DISCHARGING	05-10-25 21:26:22	05-10-25 21:37:18	10.92	66.8	65.6	99.6	5.06	4.13	81.73
27	3533	DISCHARGING	05-10-25 21:45:33	06-10-25 00:47:53	182.33	63.6	42.4	99.6	89.32	89.71	99.56
27	3535	CHARGING	06-10-25 01:29:00	06-10-25 02:47:31	78.52	42.4	100.0	99.6	242.67	205.92	84.86
27	3536	DISCHARGING	06-10-25 04:55:09	06-10-25 06:43:44	108.58	100.0	95.6	99.6	18.54	16.8	90.64
27	3537	DISCHARGING	06-10-25 06:48:46	06-10-25 06:51:27	2.68	95.2	95.2	99.6	0.0	0.14	nan
27	3538	DISCHARGING	06-10-25 07:58:20	06-10-25 08:09:13	10.88	95.2	94.8	99.6	1.68	0.06	3.51
27	3539	DISCHARGING	06-10-25 08:27:18	06-10-25 08:29:32	2.22	94.8	94.8	99.6	0.0	7.52	nan
27	3543	CHARGING	06-10-25 12:15:36	06-10-25 12:46:36	31.0	94.8	100.0	99.6	21.91	22.72	96.29
27	3544	DISCHARGING	06-10-25 12:46:37	06-10-25 15:10:42	144.09	100.0	93.2	99.6	28.65	25.08	87.55
27	3545	DISCHARGING	06-10-25 15:28:56	06-10-25 17:39:47	130.86	92.0	75.2	99.6	70.78	69.44	98.11
27	3546	DISCHARGING	06-10-25 17:45:31	06-10-25 17:49:53	4.37	74.0	72.8	99.6	5.06	5.76	85.99
27	3547	DISCHARGING	06-10-25 18:07:44	06-10-25 19:07:23	59.66	69.2	58.4	99.6	45.5	48.29	93.87
27	3548	CHARGING	06-10-25 19:11:03	06-10-25 19:55:15	44.21	58.4	91.2	99.6	138.19	171.21	76.1
27	3549	DISCHARGING	06-10-25 19:55:16	07-10-25 00:54:10	298.9	91.2	42.8	99.6	203.91	200.88	98.51
27	3553	CHARGING	07-10-25 02:38:54	07-10-25 04:22:38	103.74	42.8	100.0	99.6	240.99	233.88	97.05
27	3555	CHARGING	07-10-25 04:29:50	07-10-25 04:34:14	4.4	100.0	100.0	99.6	0.0	10.36	nan
27	3556	DISCHARGING	07-10-25 04:34:15	07-10-25 04:56:34	22.33	100.0	99.6	99.6	1.68	0.14	8.09
27	3557	DISCHARGING	07-10-25 05:27:03	07-10-25 06:43:26	76.39	99.6	99.2	99.6	1.68	2.4	57.43
27	3558	DISCHARGING	07-10-25 08:28:25	07-10-25 08:33:27	5.04	99.2	99.2	99.6	0.0	0.0	nan
27	3559	DISCHARGING	07-10-25 08:41:04	07-10-25 08:43:57	2.89	99.2	99.2	99.6	0.0	0.09	nan
27	3560	DISCHARGING	07-10-25 10:31:48	07-10-25 11:07:27	35.64	99.2	98.0	99.6	5.06	2.57	50.81
27	3562	DISCHARGING	07-10-25 12:48:22	07-10-25 16:59:38	251.26	98.0	87.2	99.6	45.5	39.32	86.42
27	3563	DISCHARGING	07-10-25 17:06:53	07-10-25 17:16:57	10.07	86.8	85.2	99.6	6.74	7.67	86.19
27	3564	DISCHARGING	07-10-25 17:26:51	07-10-25 18:17:19	50.46	84.8	81.6	99.6	13.48	14.79	90.27
27	3565	CHARGING	07-10-25 18:17:42	07-10-25 18:35:34	17.88	81.6	91.2	99.6	40.45	62.69	44.99

Vehicle 27 – Session SoC Accuracy (Page 4/15)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
27	3566	DISCHARGING	07-10-25 18:35:35	07-10-25 19:10:49	35.23	91.2	86.4	99.6	20.22	19.54	96.64
27	3567	DISCHARGING	07-10-25 19:22:08	07-10-25 23:34:12	252.08	84.8	52.8	99.6	134.82	139.72	96.37
27	3568	DISCHARGING	07-10-25 23:40:50	07-10-25 23:47:42	6.88	52.4	51.6	99.6	3.37	2.29	68.06
27	3569	DISCHARGING	08-10-25 00:07:11	08-10-25 00:09:04	1.89	51.6	51.6	99.6	0.0	0.24	nan
27	3570	CHARGING	08-10-25 00:09:05	08-10-25 01:15:33	66.46	50.4	100.0	99.6	208.97	208.93	99.98
27	3571	DISCHARGING	08-10-25 01:15:34	08-10-25 01:17:38	2.07	100.0	100.0	99.6	0.0	0.06	nan
27	3572	DISCHARGING	08-10-25 03:25:16	08-10-25 03:30:28	5.2	100.0	99.6	99.6	1.68	0.27	16.15
27	3573	DISCHARGING	08-10-25 05:30:48	08-10-25 07:37:05	126.29	99.6	97.6	99.6	8.43	7.98	94.7
27	3574	DISCHARGING	08-10-25 08:40:29	08-10-25 09:15:06	34.63	97.6	96.0	99.6	6.74	5.73	85.03
27	3575	DISCHARGING	08-10-25 09:21:44	08-10-25 09:32:20	10.6	96.0	95.6	99.6	1.68	1.95	84.03
27	3576	DISCHARGING	08-10-25 12:45:43	08-10-25 13:05:31	19.8	95.6	95.2	99.6	1.68	0.12	7.21
27	3577	CHARGING	08-10-25 13:11:33	08-10-25 13:21:46	10.22	95.2	100.0	99.6	20.22	22.42	89.11
27	3580	DISCHARGING	08-10-25 13:23:01	08-10-25 16:45:51	202.82	100.0	85.2	99.6	62.35	58.87	94.42
27	3581	DISCHARGING	08-10-25 16:54:06	08-10-25 19:12:53	138.79	84.0	58.8	99.6	106.17	107.75	98.51
27	3582	CHARGING	08-10-25 19:13:15	08-10-25 20:08:07	54.86	58.8	91.2	99.6	136.5	166.67	77.9
27	3583	DISCHARGING	08-10-25 20:08:10	08-10-25 20:56:21	48.18	91.2	79.6	99.6	48.87	50.18	97.33
27	3584	DISCHARGING	08-10-25 21:16:07	08-10-25 21:36:14	20.12	75.2	71.6	99.6	15.17	18.48	78.13
27	3585	DISCHARGING	08-10-25 21:42:52	08-10-25 21:43:33	0.67	68.8	68.8	99.6	0.0	0.38	nan
27	3586	DISCHARGING	08-10-25 21:53:28	09-10-25 01:09:56	196.47	66.0	46.8	99.6	80.89	80.69	99.75
27	3587	DISCHARGING	09-10-25 01:51:14	09-10-25 01:51:45	0.52	46.8	46.8	99.6	0.0	0.0	nan
27	3588	CHARGING	09-10-25 02:03:38	09-10-25 03:27:04	83.44	46.8	100.0	99.6	224.14	215.13	95.98
27	3589	DISCHARGING	09-10-25 04:28:06	09-10-25 04:52:41	24.57	100.0	99.6	99.6	1.68	0.62	36.81
27	3590	DISCHARGING	09-10-25 05:42:40	09-10-25 05:53:40	11.0	99.6	99.2	99.6	1.68	0.68	40.41
27	3595	DISCHARGING	09-10-25 10:45:42	09-10-25 11:31:53	46.19	99.2	98.0	99.6	5.06	3.34	65.98
27	3597	DISCHARGING	09-10-25 12:57:45	09-10-25 13:13:54	16.15	98.0	97.6	99.6	1.68	0.63	37.44
27	3598	DISCHARGING	09-10-25 13:43:08	09-10-25 14:09:29	26.36	97.6	96.0	99.6	6.74	6.26	92.94
27	3599	DISCHARGING	09-10-25 14:24:02	09-10-25 15:14:48	50.75	94.8	92.4	99.6	10.11	8.82	87.22
27	3600	DISCHARGING	09-10-25 15:24:27	09-10-25 15:44:05	19.63	92.4	91.2	99.6	5.06	4.41	87.27
27	3601	DISCHARGING	09-10-25 15:52:16	09-10-25 16:01:31	9.25	91.2	90.8	99.6	1.68	1.64	97.36
27	3602	DISCHARGING	09-10-25 16:16:24	09-10-25 17:07:59	51.59	90.4	87.2	99.6	13.48	10.66	79.08

Vehicle 27 – Session SoC Accuracy (Page 5/15)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
27	3603	DISCHARGING	09-10-25 17:32:46	09-10-25 17:47:52	15.1	86.0	83.6	99.6	10.11	8.81	87.1
27	3604	DISCHARGING	09-10-25 18:06:00	09-10-25 18:17:29	11.49	81.6	80.4	99.6	5.06	4.26	84.17
27	3605	DISCHARGING	09-10-25 18:25:45	09-10-25 20:31:43	125.96	80.0	72.8	99.6	30.33	25.67	84.61
27	3606	CHARGING	09-10-25 20:32:42	09-10-25 20:55:53	23.19	72.8	84.8	99.6	50.56	84.3	33.26
27	3607	DISCHARGING	09-10-25 20:55:55	10-10-25 02:32:06	336.19	84.8	32.0	99.6	222.45	216.51	97.33
27	3609	CHARGING	10-10-25 02:44:28	10-10-25 04:57:00	132.53	32.0	100.0	99.6	286.49	261.96	91.44
27	3616	DISCHARGING	10-10-25 05:28:00	10-10-25 07:16:25	108.42	100.0	96.8	99.6	13.48	10.77	79.91
27	3618	DISCHARGING	10-10-25 09:26:40	10-10-25 10:07:38	40.96	96.8	95.6	99.6	5.06	3.07	60.65
27	3620	CHARGING	10-10-25 12:02:55	10-10-25 12:18:35	15.68	95.6	100.0	99.6	18.54	20.79	87.83
27	3621	DISCHARGING	10-10-25 12:18:38	10-10-25 12:36:37	17.98	100.0	99.6	99.6	1.68	2.91	27.23
27	3622	DISCHARGING	10-10-25 13:02:00	10-10-25 19:26:06	384.1	99.6	58.8	99.6	171.89	164.56	95.74
27	3623	CHARGING	10-10-25 19:26:08	10-10-25 19:40:16	14.14	58.8	69.2	99.6	43.82	47.6	91.37
27	3625	CHARGING	10-10-25 19:40:18	10-10-25 20:12:26	32.13	69.2	91.2	99.6	92.69	122.75	67.57
27	3626	DISCHARGING	10-10-25 20:12:27	10-10-25 23:32:18	199.85	91.2	55.6	99.6	149.99	151.39	99.06
27	3627	DISCHARGING	10-10-25 23:39:10	11-10-25 00:15:00	35.84	54.0	50.4	99.6	15.17	17.94	81.68
27	3628	DISCHARGING	11-10-25 00:37:45	11-10-25 00:37:52	0.12	47.6	47.6	99.6	0.0	0.58	nan
27	3629	DISCHARGING	11-10-25 00:45:49	11-10-25 01:54:39	68.83	46.8	44.4	99.6	10.11	9.75	96.4
27	3630	CHARGING	11-10-25 01:55:15	11-10-25 02:52:06	56.85	44.4	76.0	99.6	133.13	142.42	93.02
27	3632	CHARGING	11-10-25 02:52:49	11-10-25 03:20:46	27.96	76.0	100.0	99.6	101.11	87.53	86.57
27	3633	DISCHARGING	11-10-25 03:20:48	11-10-25 03:34:13	13.42	100.0	99.6	99.6	1.68	0.17	10.26
27	3634	DISCHARGING	11-10-25 09:00:34	11-10-25 10:00:44	60.18	99.6	98.4	99.6	5.06	3.35	66.18
27	3635	DISCHARGING	11-10-25 10:32:48	11-10-25 10:33:36	0.8	98.4	98.4	99.6	0.0	1.06	nan
27	3636	DISCHARGING	11-10-25 12:38:16	11-10-25 12:40:00	1.74	98.4	98.4	99.6	0.0	7.54	nan
27	3638	DISCHARGING	11-10-25 13:02:54	11-10-25 15:16:46	133.87	98.4	92.4	99.6	25.28	18.79	74.33
27	3639	DISCHARGING	11-10-25 15:25:00	11-10-25 18:12:21	167.34	92.4	81.2	99.6	47.19	47.12	99.87
27	3640	DISCHARGING	11-10-25 18:20:18	11-10-25 19:02:43	42.41	80.0	78.4	99.6	6.74	8.69	71.11
27	3641	CHARGING	11-10-25 19:02:44	11-10-25 19:04:26	1.71	78.4	78.8	99.6	1.68	1.04	61.55
27	3642	DISCHARGING	11-10-25 19:04:28	11-10-25 19:05:12	0.74	78.8	78.8	99.6	0.0	2.2	nan
27	3643	CHARGING	11-10-25 19:05:13	11-10-25 19:25:57	20.74	78.8	87.2	99.6	35.39	76.12	-15.1
27	3644	CHARGING	11-10-25 19:32:18	11-10-25 19:32:50	0.53	87.2	87.2	99.6	0.0	4.63	nan

Vehicle 27 – Session SoC Accuracy (Page 6/15)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
27	3645	DISCHARGING	11-10-25 19:32:51	11-10-25 20:24:21	51.49	87.2	82.4	99.6	20.22	37.01	17.0
27	3646	DISCHARGING	11-10-25 20:42:06	11-10-25 21:22:30	40.39	79.6	72.8	99.6	28.65	31.43	90.29
27	3647	DISCHARGING	11-10-25 21:30:27	11-10-25 23:42:09	131.71	71.6	50.4	99.6	89.32	93.08	95.79
27	3648	DISCHARGING	11-10-25 23:52:05	12-10-25 01:22:13	90.14	49.6	42.8	99.6	28.65	25.91	90.43
27	3649	DISCHARGING	12-10-25 01:30:27	12-10-25 02:37:27	67.0	42.8	42.0	99.6	3.37	1.38	40.82
27	3650	CHARGING	12-10-25 02:37:28	12-10-25 03:40:31	63.05	42.0	64.4	99.6	94.37	88.46	93.73
27	3651	CHARGING	12-10-25 03:50:05	12-10-25 06:29:24	159.32	64.4	64.4	99.6	0.0	2.88	nan
27	3652	CHARGING	12-10-25 06:35:59	12-10-25 07:03:29	27.5	60.8	60.8	99.6	0.0	0.23	nan
27	3656	CHARGING	12-10-25 07:36:39	12-10-25 07:40:36	3.95	60.0	60.0	99.6	0.0	0.33	nan
27	3657	CHARGING	12-10-25 08:42:40	12-10-25 08:42:46	0.11	60.0	60.0	99.6	0.0	8.77	nan
27	3659	CHARGING	12-10-25 08:42:49	12-10-25 10:52:20	129.53	60.0	100.0	99.6	168.52	138.88	82.41
27	3661	DISCHARGING	12-10-25 12:13:09	12-10-25 12:27:12	14.06	100.0	99.6	99.6	1.68	0.2	12.08
27	3663	DISCHARGING	12-10-25 13:17:12	12-10-25 13:52:15	35.05	99.6	97.2	99.6	10.11	8.59	84.98
27	3664	DISCHARGING	12-10-25 14:00:12	12-10-25 19:22:50	322.63	96.8	58.0	99.6	163.47	159.7	97.7
27	3665	CHARGING	12-10-25 19:22:51	12-10-25 20:09:03	46.21	58.0	92.0	99.6	143.24	176.44	76.83
27	3666	DISCHARGING	12-10-25 20:09:05	13-10-25 00:12:24	243.32	92.0	44.0	99.6	202.23	203.21	99.51
27	3667	CHARGING	13-10-25 00:12:49	13-10-25 01:27:55	75.1	44.0	100.0	99.6	235.93	233.25	98.86
27	3668	DISCHARGING	13-10-25 01:42:43	13-10-25 01:44:17	1.57	100.0	100.0	99.6	0.0	0.88	nan
27	3669	DISCHARGING	13-10-25 01:55:41	13-10-25 02:02:56	7.25	100.0	99.6	99.6	1.68	4.5	-66.7
27	3670	DISCHARGING	13-10-25 08:07:31	13-10-25 08:32:39	25.13	99.6	99.6	99.6	0.0	3.9	nan
27	3671	DISCHARGING	13-10-25 09:02:39	13-10-25 11:09:30	126.85	99.6	96.8	99.6	11.8	7.87	66.72
27	3674	DISCHARGING	13-10-25 13:31:55	13-10-25 14:29:03	57.13	96.8	93.6	99.6	13.48	12.98	96.25
27	3675	DISCHARGING	13-10-25 14:34:26	13-10-25 14:49:28	15.04	93.2	92.4	99.6	3.37	3.38	99.84
27	3676	DISCHARGING	13-10-25 14:57:42	13-10-25 17:46:05	168.38	92.0	84.4	99.6	32.02	29.78	93.0
27	3677	DISCHARGING	13-10-25 17:54:19	13-10-25 19:02:14	67.91	83.2	78.0	99.6	21.91	20.9	95.42
27	3678	CHARGING	13-10-25 19:02:15	13-10-25 19:32:31	30.27	78.0	91.2	99.6	55.61	90.73	36.86
27	3679	DISCHARGING	13-10-25 19:32:32	13-10-25 19:48:54	16.36	91.2	89.2	99.6	8.43	8.58	98.22
27	3680	DISCHARGING	13-10-25 20:00:24	13-10-25 22:01:17	120.88	86.8	66.8	99.6	84.26	84.09	99.8
27	3681	DISCHARGING	13-10-25 22:17:27	14-10-25 01:02:55	165.46	64.4	46.0	99.6	77.52	75.92	97.93
27	3682	DISCHARGING	14-10-25 01:12:47	14-10-25 01:18:19	5.53	45.2	45.2	99.6	0.0	1.64	nan

Vehicle 27 – Session SoC Accuracy (Page 7/15)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
27	3684	CHARGING	14-10-25 03:45:37	14-10-25 04:14:08	28.52	45.2	45.2	99.6	0.0	0.07	nan
27	3686	CHARGING	14-10-25 04:14:10	14-10-25 05:03:05	48.92	45.2	84.0	99.6	163.47	169.83	96.11
27	3694	CHARGING	14-10-25 05:38:11	14-10-25 05:58:58	20.79	84.0	100.0	99.6	67.41	45.64	67.71
27	3697	DISCHARGING	14-10-25 06:00:34	14-10-25 07:56:45	116.2	100.0	96.8	99.6	13.48	5.68	42.13
27	3699	CHARGING	14-10-25 08:50:07	14-10-25 08:54:30	4.38	96.8	96.8	99.6	0.0	0.44	nan
27	3700	CHARGING	14-10-25 10:00:00	14-10-25 10:00:01	0.02	96.8	96.8	99.6	0.0	4.93	nan
27	3705	DISCHARGING	14-10-25 10:07:23	14-10-25 10:37:07	29.74	96.8	95.6	99.6	5.06	4.87	96.38
27	3706	DISCHARGING	14-10-25 10:46:58	14-10-25 11:20:14	33.26	95.2	94.4	99.6	3.37	1.25	37.23
27	3707	CHARGING	14-10-25 11:20:15	14-10-25 11:51:04	30.81	94.4	100.0	99.6	23.59	22.98	97.42
27	3711	DISCHARGING	14-10-25 12:10:51	14-10-25 12:16:36	5.76	100.0	99.6	99.6	1.68	0.11	6.52
27	3712	DISCHARGING	14-10-25 12:30:04	14-10-25 16:59:23	269.31	99.6	83.6	99.6	67.41	62.68	92.98
27	3713	DISCHARGING	14-10-25 17:24:00	14-10-25 19:28:00	124.0	80.4	58.0	99.6	94.37	96.46	97.79
27	3714	CHARGING	14-10-25 19:28:22	14-10-25 20:07:55	39.56	58.0	83.6	99.6	107.86	133.94	75.81
27	3715	DISCHARGING	14-10-25 20:07:56	14-10-25 21:14:00	66.07	83.6	69.2	99.6	60.67	56.19	92.62
27	3716	DISCHARGING	14-10-25 21:23:34	15-10-25 00:39:16	195.7	67.6	42.0	99.6	107.86	101.28	93.91
27	3717	CHARGING	15-10-25 00:50:15	15-10-25 02:47:30	117.25	42.0	100.0	99.6	244.36	241.31	98.75
27	3718	DISCHARGING	15-10-25 02:47:33	15-10-25 03:00:38	13.09	100.0	99.6	99.6	1.68	8.49	-303.55
27	3719	DISCHARGING	15-10-25 05:09:25	15-10-25 05:27:25	17.99	99.6	99.6	99.6	0.0	0.14	nan
27	3720	DISCHARGING	15-10-25 07:15:06	15-10-25 07:30:05	14.99	99.6	99.2	99.6	1.68	0.02	1.04
27	3721	DISCHARGING	15-10-25 10:01:11	15-10-25 10:58:29	57.29	99.2	98.8	99.6	1.68	1.42	84.18
27	3723	DISCHARGING	15-10-25 12:54:42	15-10-25 14:52:52	118.15	98.8	94.0	99.6	20.22	14.02	69.31
27	3724	DISCHARGING	15-10-25 15:02:45	15-10-25 16:26:11	83.42	94.0	90.8	99.6	13.48	7.88	58.43
27	3725	DISCHARGING	15-10-25 16:34:26	15-10-25 19:46:31	192.08	90.4	76.0	99.6	60.67	55.64	91.71
27	3726	CHARGING	15-10-25 19:47:13	15-10-25 20:16:41	29.48	76.0	90.0	99.6	58.98	97.7	34.35
27	3727	DISCHARGING	15-10-25 20:16:45	15-10-25 21:07:18	50.56	90.0	81.2	99.6	37.08	38.61	95.87
27	3728	DISCHARGING	15-10-25 21:18:40	16-10-25 02:11:06	292.44	79.6	38.0	99.6	175.26	174.75	99.71
27	3729	DISCHARGING	16-10-25 02:17:26	16-10-25 02:28:44	11.3	37.2	36.0	99.6	5.06	3.57	70.58
27	3730	DISCHARGING	16-10-25 04:50:49	16-10-25 04:52:18	1.47	36.0	36.0	99.6	0.0	0.03	nan
27	3731	DISCHARGING	16-10-25 05:17:28	16-10-25 05:29:20	11.86	36.0	36.0	99.6	0.0	0.82	nan
27	3732	DISCHARGING	16-10-25 05:38:28	16-10-25 08:24:59	166.52	36.0	30.4	99.6	23.59	13.21	55.99

Vehicle 27 – Session SoC Accuracy (Page 8/15)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
27	3733	CHARGING	16-10-25 08:25:00	16-10-25 10:23:47	118.78	30.4	78.8	99.6	203.91	221.13	91.56
27	3735	CHARGING	16-10-25 10:23:51	16-10-25 11:17:30	53.65	78.8	100.0	99.6	89.32	51.67	57.85
27	3737	DISCHARGING	16-10-25 12:45:45	16-10-25 13:26:17	40.52	100.0	98.0	99.6	8.43	7.35	87.18
27	3738	DISCHARGING	16-10-25 13:41:08	16-10-25 14:21:24	40.26	97.2	94.4	99.6	11.8	10.03	85.06
27	3739	DISCHARGING	16-10-25 15:03:52	16-10-25 15:14:04	10.21	92.0	91.6	99.6	1.68	1.9	87.06
27	3740	DISCHARGING	16-10-25 15:30:31	16-10-25 16:13:01	42.5	90.8	88.8	99.2	8.39	4.42	52.68
27	3741	DISCHARGING	16-10-25 16:18:03	16-10-25 19:58:31	220.46	88.8	53.2	99.2	149.38	154.87	96.33
27	3742	CHARGING	16-10-25 19:58:43	16-10-25 20:07:17	8.56	53.2	60.4	99.2	30.21	31.31	96.36
27	3743	CHARGING	16-10-25 20:20:56	16-10-25 20:44:41	23.75	72.4	85.2	99.2	53.71	83.86	43.87
27	3744	DISCHARGING	16-10-25 20:44:44	17-10-25 01:07:46	263.04	85.2	45.2	99.2	167.85	166.85	99.4
27	3745	DISCHARGING	17-10-25 01:22:36	17-10-25 01:29:50	7.22	44.8	44.8	99.2	0.0	0.07	nan
27	3746	DISCHARGING	17-10-25 01:51:13	17-10-25 02:13:44	22.51	44.4	44.0	99.2	1.68	0.17	10.39
27	3747	DISCHARGING	17-10-25 02:23:21	17-10-25 03:38:09	74.79	44.0	42.8	99.2	5.04	0.68	13.6
27	3748	CHARGING	17-10-25 03:38:10	17-10-25 05:09:43	91.56	42.8	100.0	99.2	240.02	232.06	96.68
27	3751	DISCHARGING	17-10-25 05:13:39	17-10-25 05:13:49	0.15	100.0	100.0	99.2	0.0	1.0	nan
27	3752	DISCHARGING	17-10-25 05:24:10	17-10-25 05:42:40	18.48	100.0	99.6	99.2	1.68	10.25	-410.81
27	3753	DISCHARGING	17-10-25 06:05:36	17-10-25 06:32:27	26.85	99.6	98.4	99.2	5.04	2.92	58.01
27	3754	DISCHARGING	17-10-25 07:49:25	17-10-25 07:56:22	6.95	98.4	98.4	99.2	0.0	0.63	nan
27	3755	DISCHARGING	17-10-25 08:06:59	17-10-25 08:07:49	0.84	98.4	98.4	99.2	0.0	0.0	nan
27	3757	DISCHARGING	17-10-25 11:44:32	17-10-25 12:45:08	60.6	98.4	97.6	99.2	3.36	2.09	62.29
27	3759	DISCHARGING	17-10-25 13:46:58	17-10-25 14:46:04	59.1	97.6	94.4	99.2	13.43	12.14	90.4
27	3760	DISCHARGING	17-10-25 14:59:35	17-10-25 16:02:33	62.96	93.6	90.8	99.2	11.75	10.91	92.88
27	3761	DISCHARGING	17-10-25 16:21:15	17-10-25 16:32:34	11.32	90.4	89.6	99.2	3.36	2.37	70.67
27	3762	DISCHARGING	17-10-25 16:43:53	17-10-25 17:49:21	65.47	89.2	86.4	99.2	11.75	11.4	97.04
27	3763	DISCHARGING	17-10-25 17:55:40	17-10-25 19:57:07	121.44	86.4	78.0	99.2	35.25	31.39	89.05
27	3764	DISCHARGING	17-10-25 20:08:42	17-10-25 20:29:45	21.05	76.8	75.2	99.2	6.71	5.5	81.87
27	3765	CHARGING	17-10-25 20:29:46	17-10-25 20:41:47	12.01	75.2	78.4	99.2	13.43	14.96	88.63
27	3767	CHARGING	17-10-25 20:41:49	17-10-25 20:52:42	10.88	78.4	80.4	99.2	8.39	23.8	-83.55
27	3769	CHARGING	17-10-25 20:52:44	17-10-25 21:16:17	23.55	80.4	91.2	99.2	45.32	61.14	65.09
27	3770	DISCHARGING	17-10-25 21:16:18	17-10-25 23:12:15	115.95	91.2	72.0	99.2	80.57	82.23	97.93

Vehicle 27 – Session SoC Accuracy (Page 9/15)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
27	3771	DISCHARGING	17-10-25 23:27:07	18-10-25 00:48:17	81.16	69.6	55.2	99.2	60.42	59.1	97.81
27	3772	DISCHARGING	18-10-25 00:59:49	18-10-25 03:34:42	154.88	53.2	36.0	99.2	72.17	67.06	92.91
27	3774	DISCHARGING	18-10-25 04:47:37	18-10-25 05:05:22	17.75	36.0	36.0	99.2	0.0	0.67	nan
27	3775	CHARGING	18-10-25 05:05:23	18-10-25 05:45:58	40.58	36.0	53.2	99.2	72.17	76.63	93.83
27	3777	DISCHARGING	18-10-25 05:59:06	18-10-25 06:02:06	3.0	53.2	53.2	99.2	0.0	0.13	nan
27	3778	DISCHARGING	18-10-25 06:24:56	18-10-25 09:01:27	156.51	53.2	51.6	99.2	6.71	2.89	43.09
27	3779	CHARGING	18-10-25 09:01:30	18-10-25 10:54:00	112.5	51.6	100.0	99.2	203.09	185.57	91.37
27	3780	DISCHARGING	18-10-25 10:54:01	18-10-25 11:24:28	30.45	100.0	100.0	99.2	0.0	0.89	nan
27	3781	DISCHARGING	18-10-25 11:39:52	18-10-25 11:43:19	3.45	100.0	99.6	99.2	1.68	6.2	-169.36
27	3782	DISCHARGING	18-10-25 12:46:11	18-10-25 19:30:03	403.87	99.6	67.2	99.2	135.96	121.42	89.31
27	3783	DISCHARGING	18-10-25 19:38:20	18-10-25 20:23:25	45.08	65.6	58.8	99.2	28.53	33.3	83.29
27	3784	CHARGING	18-10-25 20:23:26	18-10-25 21:08:54	45.48	58.8	92.4	99.2	140.99	147.55	95.35
27	3785	DISCHARGING	18-10-25 21:08:57	18-10-25 21:54:02	45.08	92.4	84.0	99.2	35.25	36.38	96.77
27	3786	DISCHARGING	18-10-25 22:03:41	18-10-25 22:11:34	7.89	81.2	79.6	99.2	6.71	9.34	60.94
27	3787	DISCHARGING	18-10-25 22:24:29	19-10-25 02:28:36	244.12	77.2	50.8	99.2	110.78	110.56	99.8
27	3792	CHARGING	19-10-25 02:34:22	19-10-25 04:10:49	96.45	50.8	100.0	99.2	206.45	220.22	93.33
27	3793	DISCHARGING	19-10-25 04:10:50	19-10-25 05:40:39	89.82	100.0	99.6	99.2	1.68	0.33	19.85
27	3794	DISCHARGING	19-10-25 06:15:26	19-10-25 06:17:24	1.96	99.6	99.6	99.2	0.0	0.66	nan
27	3795	DISCHARGING	19-10-25 07:04:12	19-10-25 07:38:47	34.57	99.6	98.4	99.2	5.04	4.59	91.2
27	3796	DISCHARGING	19-10-25 07:44:06	19-10-25 07:44:28	0.36	98.4	98.4	99.2	0.0	0.0	nan
27	3797	DISCHARGING	19-10-25 09:03:04	19-10-25 09:12:26	9.36	98.4	98.0	99.2	1.68	0.42	24.72
27	3798	DISCHARGING	19-10-25 09:55:48	19-10-25 10:03:05	7.28	98.0	98.0	99.2	0.0	5.13	nan
27	3799	DISCHARGING	19-10-25 12:28:36	19-10-25 13:11:45	43.14	98.0	96.8	99.2	5.04	1.33	26.44
27	3800	DISCHARGING	19-10-25 13:52:43	19-10-25 14:04:14	11.52	96.8	96.8	99.2	0.0	0.93	nan
27	3801	DISCHARGING	19-10-25 14:45:18	19-10-25 16:59:17	133.99	96.8	90.8	99.2	25.18	21.65	86.0
27	3802	DISCHARGING	19-10-25 17:05:38	19-10-25 17:24:36	18.97	90.4	89.6	99.2	3.36	2.38	70.88
27	3803	DISCHARGING	19-10-25 17:39:10	19-10-25 19:47:57	128.78	89.2	76.0	99.2	55.39	52.98	95.66
27	3804	CHARGING	19-10-25 19:47:58	19-10-25 19:49:52	1.9	76.0	76.4	99.2	1.68	1.84	90.48
27	3806	CHARGING	19-10-25 19:50:40	19-10-25 19:52:36	1.93	76.4	77.2	99.2	3.36	2.09	62.15
27	3808	CHARGING	19-10-25 19:54:42	19-10-25 20:17:01	22.32	77.2	86.0	99.2	36.93	81.64	-21.09

Vehicle 27 – Session SoC Accuracy (Page 10/15)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
27	3809	DISCHARGING	19-10-25 20:17:02	20-10-25 01:02:21	285.32	86.0	39.6	99.2	194.7	192.6	98.92
27	3810	DISCHARGING	20-10-25 01:20:32	20-10-25 01:35:37	15.08	37.2	36.0	99.2	5.04	6.14	77.98
27	3812	DISCHARGING	20-10-25 09:51:47	20-10-25 10:00:30	8.73	36.0	35.6	99.2	1.68	0.16	9.25
27	3813	CHARGING	20-10-25 10:02:02	20-10-25 11:26:32	84.49	35.6	100.0	99.2	270.23	237.38	87.84
27	3817	DISCHARGING	20-10-25 11:58:00	20-10-25 15:05:20	187.34	99.6	92.4	99.2	30.21	24.03	79.53
27	3819	DISCHARGING	20-10-25 15:25:41	20-10-25 16:04:20	38.66	91.6	88.8	99.2	11.75	10.82	92.11
27	3820	DISCHARGING	20-10-25 16:15:52	20-10-25 19:12:31	176.65	87.6	60.8	99.2	112.46	115.36	97.42
27	3823	CHARGING	20-10-25 19:13:01	20-10-25 19:58:52	45.85	60.8	93.2	99.2	135.96	156.6	84.81
27	3824	DISCHARGING	20-10-25 19:58:55	20-10-25 21:31:04	92.16	93.2	71.6	99.2	90.64	92.45	98.0
27	3825	DISCHARGING	20-10-25 21:37:45	20-10-25 23:50:08	132.38	69.2	52.8	99.2	68.82	68.62	99.71
27	3826	DISCHARGING	21-10-25 04:12:29	21-10-25 04:51:05	38.6	52.8	52.4	99.2	1.68	0.44	25.94
27	3830	CHARGING	21-10-25 05:29:42	21-10-25 05:32:42	3.0	52.4	52.8	99.2	1.68	2.91	26.45
27	3832	CHARGING	21-10-25 05:32:46	21-10-25 06:48:35	75.83	52.8	100.0	99.2	198.06	198.98	99.53
27	3833	DISCHARGING	21-10-25 06:48:39	21-10-25 07:18:24	29.76	100.0	99.2	99.2	3.36	0.01	0.36
27	3834	DISCHARGING	21-10-25 07:31:23	21-10-25 07:40:56	9.54	99.2	99.2	99.2	0.0	2.66	nan
27	3835	DISCHARGING	21-10-25 07:55:03	21-10-25 07:57:13	2.17	99.2	99.2	99.2	0.0	5.58	nan
27	3837	DISCHARGING	21-10-25 09:35:37	21-10-25 09:37:18	1.68	99.2	99.2	99.2	0.0	0.02	nan
27	3838	DISCHARGING	21-10-25 10:12:16	21-10-25 10:15:00	2.73	99.2	99.2	99.2	0.0	0.01	nan
27	3839	DISCHARGING	21-10-25 11:31:31	21-10-25 12:10:06	38.58	99.2	98.8	99.2	1.68	1.18	69.98
27	3840	DISCHARGING	21-10-25 12:28:08	21-10-25 12:58:39	30.52	98.8	98.8	99.2	0.0	0.08	nan
27	3841	DISCHARGING	21-10-25 13:35:49	21-10-25 16:47:25	191.6	98.8	90.4	99.2	35.25	28.73	81.52
27	3842	DISCHARGING	21-10-25 17:05:11	21-10-25 18:45:11	99.99	90.0	82.4	99.2	31.89	33.82	93.95
27	3843	CHARGING	21-10-25 18:45:12	21-10-25 18:46:49	1.62	82.4	82.4	99.2	0.0	0.77	nan
27	3845	CHARGING	21-10-25 18:48:27	21-10-25 18:51:19	2.86	82.4	83.6	99.2	5.04	5.14	97.86
27	3847	CHARGING	21-10-25 18:52:37	21-10-25 19:07:20	14.71	83.6	92.0	99.2	35.25	54.36	45.76
27	3848	DISCHARGING	21-10-25 19:07:21	22-10-25 00:15:30	308.15	92.0	46.8	99.2	189.67	193.38	98.04
27	3849	DISCHARGING	22-10-25 00:28:29	22-10-25 01:29:43	61.23	45.2	40.4	99.2	20.14	18.62	92.46
27	3850	CHARGING	22-10-25 02:13:50	22-10-25 04:02:16	108.44	50.4	70.8	99.2	85.6	87.26	98.07
27	3852	CHARGING	22-10-25 04:02:19	22-10-25 05:25:06	82.79	70.8	80.0	99.2	38.6	51.81	65.8
27	3854	CHARGING	22-10-25 05:25:08	22-10-25 06:12:57	47.81	80.0	84.8	99.2	20.14	28.83	56.87

Vehicle 27 – Session SoC Accuracy (Page 11/15)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
27	3858	CHARGING	22-10-25 06:16:43	22-10-25 07:01:04	44.35	84.8	100.0	99.2	63.78	38.28	60.01
27	3859	CHARGING	22-10-25 07:15:35	22-10-25 07:32:25	16.82	nan	nan	nan	nan	0.0	nan
27	3863	DISCHARGING	22-10-25 11:18:27	22-10-25 12:53:37	95.16	100.0	99.2	99.2	3.36	1.92	57.2
27	3864	DISCHARGING	22-10-25 15:41:09	22-10-25 16:13:35	32.44	99.2	98.4	99.2	3.36	2.55	75.93
27	3865	DISCHARGING	22-10-25 16:26:43	22-10-25 16:56:47	30.07	96.8	94.0	99.2	11.75	10.72	91.25
27	3866	DISCHARGING	22-10-25 17:03:07	22-10-25 17:50:42	47.59	94.0	89.6	99.2	18.46	18.23	98.75
27	3867	DISCHARGING	22-10-25 18:10:26	22-10-25 21:35:57	205.51	88.4	56.4	99.2	134.28	136.13	98.62
27	3868	CHARGING	22-10-25 21:36:08	22-10-25 21:59:03	22.92	56.4	70.0	99.2	57.07	60.22	94.47
27	3869	CHARGING	22-10-25 22:07:44	22-10-25 22:37:25	29.67	70.0	91.2	99.2	88.96	98.85	88.88
27	3870	DISCHARGING	22-10-25 22:37:26	23-10-25 02:55:11	257.75	91.2	48.8	99.2	177.92	173.51	97.52
27	3871	DISCHARGING	23-10-25 03:28:02	23-10-25 03:51:58	23.94	48.8	48.4	99.2	1.68	0.21	12.68
27	3872	CHARGING	23-10-25 03:52:57	23-10-25 05:21:21	88.4	48.4	100.0	99.2	216.52	229.79	93.87
27	3874	DISCHARGING	23-10-25 05:57:01	23-10-25 06:02:02	5.02	100.0	99.6	99.2	1.68	0.19	11.39
27	3875	DISCHARGING	23-10-25 12:35:24	23-10-25 16:45:44	250.34	99.6	89.6	99.2	41.96	29.74	70.89
27	3876	DISCHARGING	23-10-25 16:54:06	23-10-25 19:08:58	134.88	89.2	78.0	99.2	47.0	43.89	93.39
27	3877	CHARGING	23-10-25 19:09:29	23-10-25 19:46:37	37.14	78.0	100.0	99.2	92.32	95.92	96.09
27	3878	DISCHARGING	23-10-25 19:46:38	24-10-25 00:57:13	310.58	100.0	57.2	99.2	179.6	182.68	98.28
27	3879	DISCHARGING	24-10-25 01:05:11	24-10-25 01:22:53	17.7	56.8	55.2	99.2	6.71	7.19	92.96
27	3880	DISCHARGING	24-10-25 01:40:45	24-10-25 02:13:37	32.85	53.6	52.4	99.2	5.04	4.54	90.11
27	3881	CHARGING	24-10-25 02:20:23	24-10-25 03:32:37	72.22	52.4	80.8	99.2	119.17	127.82	92.74
27	3885	DISCHARGING	24-10-25 05:39:54	24-10-25 05:41:23	1.49	80.8	80.8	99.2	0.0	0.02	nan
27	3886	CHARGING	24-10-25 05:42:09	24-10-25 06:26:57	44.79	80.8	100.0	99.2	80.57	78.8	97.8
27	3893	DISCHARGING	24-10-25 08:26:19	24-10-25 09:52:06	85.78	100.0	99.2	99.2	3.36	2.14	63.88
27	3894	DISCHARGING	24-10-25 10:02:10	24-10-25 10:02:32	0.37	99.2	99.2	99.2	0.0	0.75	nan
27	3895	DISCHARGING	24-10-25 11:09:56	24-10-25 11:10:14	0.3	99.2	99.2	99.2	0.0	0.0	nan
27	3898	DISCHARGING	24-10-25 13:12:35	24-10-25 13:17:11	4.59	99.2	99.2	99.2	0.0	0.84	nan
27	3899	DISCHARGING	24-10-25 13:26:58	24-10-25 13:48:42	21.73	99.2	97.2	99.2	8.39	1.67	19.93
27	3900	DISCHARGING	24-10-25 13:55:19	24-10-25 19:27:34	332.24	96.8	56.4	99.2	169.52	169.44	99.95
27	3901	CHARGING	24-10-25 19:29:23	24-10-25 20:15:28	46.09	56.4	90.0	99.2	140.99	157.53	88.27
27	3902	DISCHARGING	24-10-25 20:15:31	25-10-25 00:29:31	254.0	90.0	50.8	99.2	164.49	165.48	99.4

Vehicle 27 – Session SoC Accuracy (Page 12/15)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
27	3903	CHARGING	25-10-25 00:35:12	25-10-25 00:37:38	2.43	50.8	50.8	99.2	0.0	0.45	nan
27	3905	CHARGING	25-10-25 00:38:12	25-10-25 01:58:03	79.84	50.8	100.0	99.2	206.45	207.27	99.6
27	3908	DISCHARGING	25-10-25 02:04:16	25-10-25 05:54:13	229.94	100.0	80.4	99.2	82.24	70.38	85.58
27	3909	CHARGING	25-10-25 05:54:16	25-10-25 06:12:36	18.33	80.4	90.0	99.2	40.28	62.87	43.92
27	3910	DISCHARGING	25-10-25 06:12:38	25-10-25 07:44:26	91.81	90.0	78.0	99.2	50.35	50.56	99.59
27	3911	DISCHARGING	25-10-25 07:51:02	25-10-25 08:47:24	56.37	77.2	67.2	99.2	41.96	47.7	86.33
27	3912	DISCHARGING	25-10-25 08:57:18	25-10-25 09:06:27	9.15	65.2	63.2	99.2	8.39	7.84	93.46
27	3913	DISCHARGING	25-10-25 09:14:45	25-10-25 14:41:57	327.21	61.6	31.6	99.2	125.88	124.09	98.58
27	3916	CHARGING	25-10-25 14:42:29	25-10-25 16:03:51	81.37	31.6	91.2	99.2	250.09	245.2	98.05
27	3917	DISCHARGING	25-10-25 16:03:53	25-10-25 18:01:09	117.26	91.2	84.0	99.2	30.21	24.7	81.76
27	3918	DISCHARGING	25-10-25 18:11:06	25-10-25 21:30:17	199.18	83.6	54.0	99.2	124.21	126.79	97.92
27	3919	CHARGING	25-10-25 21:31:21	25-10-25 21:58:18	26.95	54.0	77.2	99.2	97.35	103.13	94.06
27	3920	DISCHARGING	25-10-25 22:12:07	26-10-25 01:50:24	218.29	84.8	48.8	99.2	151.06	157.86	95.5
27	3921	DISCHARGING	26-10-25 02:16:43	26-10-25 02:42:03	25.34	46.8	46.4	99.2	1.68	0.63	37.27
27	3922	DISCHARGING	26-10-25 02:56:33	26-10-25 05:30:30	153.94	46.4	46.4	99.2	0.0	0.66	nan
27	3926	CHARGING	26-10-25 05:46:10	26-10-25 06:05:01	18.84	46.0	51.6	99.2	23.5	25.04	93.46
27	3927	DISCHARGING	26-10-25 06:05:02	26-10-25 06:06:19	1.3	51.6	51.6	99.2	0.0	0.74	nan
27	3928	CHARGING	26-10-25 06:06:57	26-10-25 06:28:38	21.68	51.6	65.2	99.2	57.07	60.01	94.84
27	3929	DISCHARGING	26-10-25 06:28:42	26-10-25 06:39:29	10.79	65.2	64.8	99.2	1.68	3.66	-18.02
27	3930	CHARGING	26-10-25 06:39:30	26-10-25 06:44:18	4.79	64.8	64.8	99.2	0.0	0.08	nan
27	3932	CHARGING	26-10-25 06:44:20	26-10-25 08:21:28	97.13	64.8	100.0	99.2	147.71	144.43	97.78
27	3933	DISCHARGING	26-10-25 08:21:29	26-10-25 08:59:19	37.84	100.0	98.8	99.2	5.04	3.2	63.48
27	3935	DISCHARGING	26-10-25 10:19:41	26-10-25 11:35:08	75.44	98.8	97.2	99.2	6.71	1.75	26.0
27	3936	DISCHARGING	26-10-25 12:10:06	26-10-25 16:01:32	231.43	97.2	81.2	99.2	67.14	54.3	80.88
27	3937	CHARGING	26-10-25 16:04:02	26-10-25 16:25:42	21.67	81.2	92.8	99.2	48.68	68.31	59.66
27	3938	DISCHARGING	26-10-25 16:25:43	26-10-25 21:36:26	310.71	92.8	51.2	99.2	174.56	178.82	97.56
27	3939	DISCHARGING	26-10-25 21:44:27	26-10-25 23:01:03	76.6	50.4	44.0	99.2	26.86	25.58	95.24
27	3940	CHARGING	26-10-25 23:01:04	27-10-25 00:26:51	85.78	44.0	100.0	99.2	234.98	238.14	98.66
27	3943	DISCHARGING	27-10-25 02:25:37	27-10-25 05:51:36	205.98	100.0	87.6	99.2	52.03	45.86	88.13
27	3944	DISCHARGING	27-10-25 06:22:08	27-10-25 06:35:38	13.5	86.0	84.4	99.2	6.71	6.06	90.29

Vehicle 27 – Session SoC Accuracy (Page 13/15)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
27	3945	DISCHARGING	27-10-25 06:42:14	27-10-25 07:23:52	41.65	83.6	78.8	99.2	20.14	21.61	92.69
27	3946	DISCHARGING	27-10-25 07:33:52	27-10-25 09:55:56	142.05	76.8	50.0	99.2	112.46	116.1	96.76
27	3947	CHARGING	27-10-25 09:56:19	27-10-25 10:51:20	55.03	50.0	91.6	99.2	174.56	189.08	91.68
27	3948	DISCHARGING	27-10-25 10:51:22	27-10-25 10:54:08	2.77	91.6	91.6	99.2	0.0	0.01	nan
27	3949	DISCHARGING	27-10-25 11:03:48	27-10-25 11:11:37	7.82	89.6	88.0	99.2	6.71	9.7	55.6
27	3950	DISCHARGING	27-10-25 11:29:44	27-10-25 11:50:02	20.29	84.0	78.4	99.2	23.5	24.05	97.63
27	3951	DISCHARGING	27-10-25 11:56:25	27-10-25 15:54:26	238.01	76.8	48.4	99.2	119.17	116.97	98.15
27	3952	CHARGING	27-10-25 15:54:27	27-10-25 16:33:11	38.74	48.4	76.0	99.2	115.81	106.41	91.88
27	3953	DISCHARGING	27-10-25 16:33:12	27-10-25 18:06:26	93.23	76.0	68.8	99.2	30.21	27.34	90.49
27	3954	DISCHARGING	27-10-25 18:18:19	27-10-25 18:28:47	10.47	67.6	67.2	99.2	1.68	1.39	82.78
27	3955	DISCHARGING	27-10-25 18:43:19	27-10-25 19:58:18	74.99	66.8	58.8	99.2	33.57	30.03	89.45
27	3956	DISCHARGING	27-10-25 20:06:34	27-10-25 20:33:21	26.78	58.4	56.4	99.2	8.39	6.76	80.59
27	3957	CHARGING	27-10-25 20:33:22	27-10-25 21:18:08	44.77	56.4	84.8	99.2	119.17	140.99	81.7
27	3958	DISCHARGING	27-10-25 21:18:12	27-10-25 22:29:59	71.8	84.8	72.8	99.2	50.35	51.52	97.68
27	3959	DISCHARGING	27-10-25 22:39:37	28-10-25 00:07:19	87.7	70.8	59.6	99.2	47.0	50.74	92.03
27	3960	DISCHARGING	28-10-25 00:15:39	28-10-25 05:43:29	327.84	58.0	33.2	99.2	104.06	97.06	93.27
27	3961	CHARGING	28-10-25 05:46:24	28-10-25 05:53:16	6.87	33.2	38.0	99.2	20.14	18.58	92.24
27	3962	CHARGING	28-10-25 06:00:00	28-10-25 06:40:46	40.76	44.0	78.8	99.2	146.03	161.84	89.17
27	3963	DISCHARGING	28-10-25 06:40:47	28-10-25 06:40:47	0.01	78.8	78.8	99.2	0.0	0.0	nan
27	3967	CHARGING	28-10-25 12:25:12	28-10-25 12:57:54	32.7	78.8	100.0	99.2	88.96	84.24	94.69
27	3969	DISCHARGING	28-10-25 13:24:51	28-10-25 14:53:44	88.87	100.0	96.8	99.2	13.43	10.99	81.84
27	3970	DISCHARGING	28-10-25 15:10:11	28-10-25 17:01:25	111.24	96.0	89.2	99.2	28.53	24.86	87.14
27	3971	DISCHARGING	28-10-25 17:14:22	28-10-25 18:32:25	78.05	88.4	78.4	99.2	41.96	45.62	91.29
27	3972	DISCHARGING	28-10-25 18:40:24	28-10-25 20:21:52	101.47	77.6	59.6	99.2	75.53	79.61	94.6
27	3973	CHARGING	28-10-25 20:21:59	28-10-25 20:22:44	0.76	59.6	59.6	99.2	0.0	0.42	nan
27	3974	DISCHARGING	28-10-25 21:16:19	29-10-25 01:30:12	253.89	91.2	50.0	99.2	172.88	170.48	98.61
27	3976	DISCHARGING	29-10-25 02:24:46	29-10-25 03:05:34	40.8	49.2	48.4	99.2	3.36	0.28	8.33
27	3977	DISCHARGING	29-10-25 03:19:51	29-10-25 03:27:21	7.49	48.4	48.4	99.2	0.0	0.25	nan
27	3978	DISCHARGING	29-10-25 04:01:23	29-10-25 04:02:04	0.69	48.4	48.4	99.2	0.0	0.01	nan
27	3979	CHARGING	29-10-25 04:02:55	29-10-25 04:53:54	50.98	48.4	74.0	99.2	107.42	113.68	94.17

Vehicle 27 – Session SoC Accuracy (Page 14/15)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
27	3980	DISCHARGING	29-10-25 04:53:55	29-10-25 05:03:10	9.25	74.0	74.0	99.2	0.0	0.54	nan
27	3981	CHARGING	29-10-25 05:27:49	29-10-25 06:20:08	52.31	74.0	100.0	99.2	109.1	108.8	99.73
27	3983	DISCHARGING	29-10-25 06:35:08	29-10-25 06:47:30	12.38	100.0	99.6	99.2	1.68	0.18	10.52
27	3986	DISCHARGING	29-10-25 12:54:13	29-10-25 13:02:48	8.59	99.2	99.2	99.2	0.0	3.55	nan
27	3987	DISCHARGING	29-10-25 13:16:03	29-10-25 14:28:38	72.6	99.2	95.6	99.2	15.11	11.88	78.65
27	3988	DISCHARGING	29-10-25 14:33:39	29-10-25 17:18:02	164.38	95.2	88.0	99.2	30.21	22.91	75.83
27	3989	DISCHARGING	29-10-25 17:27:46	29-10-25 19:10:58	103.2	86.8	79.6	99.2	30.21	30.71	98.37
27	3990	CHARGING	29-10-25 19:12:41	29-10-25 19:38:39	25.97	79.6	90.8	99.2	47.0	89.66	9.21
27	3991	DISCHARGING	29-10-25 19:38:42	29-10-25 19:58:47	20.09	90.8	88.0	99.2	11.75	10.96	93.25
27	3992	DISCHARGING	29-10-25 20:05:07	29-10-25 20:45:23	40.27	86.4	79.6	99.2	28.53	28.42	99.59
27	3993	DISCHARGING	29-10-25 20:53:22	30-10-25 01:52:35	299.21	78.4	35.6	99.2	179.6	171.26	95.36
27	3426	DISCHARGING	30-09-25 18:30:00	30-09-25 19:43:06	73.1	67.2	55.6	99.6	48.87	44.14	90.32
27	3428	DISCHARGING	30-09-25 20:01:32	30-09-25 20:03:52	2.34	53.2	53.2	99.6	0.0	0.04	nan
27	3429	CHARGING	30-09-25 20:06:25	30-09-25 20:11:41	5.27	53.2	53.6	99.6	1.68	1.39	82.65
27	3430	DISCHARGING	30-09-25 20:11:42	30-09-25 20:13:09	1.45	53.6	53.6	99.6	0.0	0.08	nan
27	3431	CHARGING	30-09-25 20:13:43	30-09-25 21:10:40	56.96	53.6	88.0	99.6	144.93	174.92	79.31
27	3432	DISCHARGING	30-09-25 21:10:41	01-10-25 00:22:42	192.01	88.0	48.8	99.6	165.15	169.25	97.52
27	3994	CHARGING	30-10-25 01:52:38	30-10-25 03:40:23	107.76	35.6	82.0	99.2	194.7	216.58	88.76
27	3997	CHARGING	30-10-25 04:04:31	30-10-25 04:17:59	13.47	82.0	100.0	99.2	75.53	25.83	34.19
27	3999	CHARGING	30-10-25 04:36:03	30-10-25 04:36:29	0.44	100.0	100.0	99.2	0.0	0.52	nan
27	4000	CHARGING	30-10-25 06:19:47	30-10-25 06:19:49	0.04	100.0	100.0	99.2	0.0	5.01	nan
27	4001	DISCHARGING	30-10-25 06:19:50	30-10-25 06:20:08	0.3	100.0	100.0	99.2	0.0	0.0	nan
27	4002	DISCHARGING	30-10-25 06:29:36	30-10-25 08:12:38	103.03	100.0	96.8	99.2	13.43	11.12	82.79
27	4003	CHARGING	30-10-25 08:12:39	30-10-25 08:38:40	26.02	96.8	100.0	99.2	13.43	14.99	88.4
27	4005	DISCHARGING	30-10-25 09:35:59	30-10-25 11:44:38	128.65	100.0	96.8	99.2	13.43	6.96	51.87
27	4006	CHARGING	30-10-25 11:58:44	30-10-25 12:01:02	2.28	96.8	97.2	99.2	1.68	2.33	61.5
27	4007	CHARGING	30-10-25 12:33:34	30-10-25 12:45:06	11.54	97.2	100.0	99.2	11.75	9.68	82.41
27	4009	DISCHARGING	30-10-25 13:08:16	30-10-25 13:41:55	33.65	100.0	99.6	99.2	1.68	0.15	9.12
27	4010	DISCHARGING	30-10-25 13:56:08	30-10-25 15:28:45	92.61	99.6	94.4	99.2	21.82	15.83	72.54
27	4011	DISCHARGING	30-10-25 15:38:23	30-10-25 18:38:48	180.42	94.0	76.8	99.2	72.17	72.08	99.87

Vehicle 27 — Session SoC Accuracy (Page 15/15)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
27	4012	DISCHARGING	30-10-25 18:48:24	30-10-25 20:17:14	88.83	75.2	57.6	99.2	73.85	80.48	91.02
27	4013	CHARGING	30-10-25 20:18:08	30-10-25 20:21:16	3.14	57.6	59.2	99.2	6.71	5.97	88.93
27	4014	CHARGING	30-10-25 20:26:41	30-10-25 20:32:19	5.63	61.6	64.8	99.2	13.43	16.86	74.42
27	4015	CHARGING	30-10-25 20:57:53	30-10-25 21:01:01	3.13	80.0	80.0	99.2	0.0	5.85	nan
27	4016	DISCHARGING	30-10-25 21:01:02	30-10-25 21:05:28	4.43	80.0	79.6	99.2	1.68	0.25	14.79
27	4017	CHARGING	30-10-25 21:05:30	30-10-25 21:21:14	15.73	79.6	86.0	99.2	26.86	49.83	14.45
27	4018	DISCHARGING	30-10-25 21:21:15	30-10-25 22:06:15	45.01	86.0	76.4	99.2	40.28	43.08	93.07
27	4019	DISCHARGING	30-10-25 22:12:40	30-10-25 22:13:29	0.83	74.4	74.4	99.2	0.0	2.23	nan
27	4020	DISCHARGING	30-10-25 22:29:40	30-10-25 22:39:51	10.2	71.2	69.2	99.2	8.39	8.94	93.41
27	4021	DISCHARGING	30-10-25 22:48:08	31-10-25 01:43:32	175.4	67.6	42.0	99.2	107.42	102.36	95.29
27	4022	DISCHARGING	31-10-25 01:48:51	31-10-25 02:34:00	45.16	42.0	41.2	99.2	3.36	0.28	8.42
27	4023	CHARGING	31-10-25 02:34:01	31-10-25 06:00:08	206.1	41.2	100.0	99.2	246.73	225.32	91.32
27	4024	DISCHARGING	31-10-25 06:00:09	31-10-25 06:06:38	6.48	100.0	99.6	99.2	1.68	1.26	74.8
27	4025	DISCHARGING	31-10-25 06:42:11	31-10-25 06:51:12	9.02	99.6	99.2	99.2	1.68	0.21	12.72
27	4027	DISCHARGING	31-10-25 09:57:19	31-10-25 10:04:36	7.27	99.2	98.8	99.2	1.68	1.36	80.87
27	4028	DISCHARGING	31-10-25 10:10:53	31-10-25 11:55:34	104.69	98.4	96.4	99.2	8.39	4.52	53.86
27	4030	DISCHARGING	31-10-25 13:41:41	31-10-25 16:14:07	152.45	96.4	89.6	99.2	28.53	23.12	81.04
27	4031	DISCHARGING	31-10-25 16:29:34	31-10-25 16:40:52	11.29	88.8	88.4	99.2	1.68	0.06	3.76
27	4032	DISCHARGING	31-10-25 16:47:30	31-10-25 16:53:57	6.45	88.0	87.2	99.2	3.36	3.47	96.5
27	4033	DISCHARGING	31-10-25 17:00:18	31-10-25 17:15:10	14.86	86.8	86.0	99.2	3.36	2.77	82.55
27	4034	DISCHARGING	31-10-25 17:22:11	31-10-25 18:29:58	67.8	86.0	82.0	99.2	16.78	16.07	95.75

Vehicle 28 – Session SoC Accuracy (Page 1/13)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
28	4035	DISCHARGING	02-10-25 05:16:51	02-10-25 07:42:12	145.35	87.6	84.8	100.0	11.84	4.39	37.03
28	4038	DISCHARGING	02-10-25 09:03:10	02-10-25 09:13:57	10.79	84.8	84.4	100.0	1.69	1.26	74.65
28	4039	CHARGING	02-10-25 09:13:58	02-10-25 09:15:04	1.09	84.4	84.4	100.0	0.0	1.37	nan
28	4041	CHARGING	02-10-25 09:15:06	02-10-25 09:26:08	11.03	84.4	85.2	100.0	3.38	8.44	-49.35
28	4043	CHARGING	02-10-25 09:26:10	02-10-25 09:29:33	3.4	85.2	85.6	100.0	1.69	3.65	-15.91
28	4045	CHARGING	02-10-25 09:29:36	02-10-25 09:32:27	2.85	85.6	85.6	100.0	0.0	0.81	nan
28	4049	CHARGING	02-10-25 09:32:46	02-10-25 09:36:31	3.75	85.6	86.4	100.0	3.38	2.6	76.71
28	4057	CHARGING	02-10-25 09:57:04	02-10-25 10:32:00	34.94	86.4	100.0	100.0	57.53	38.44	66.83
28	4058	DISCHARGING	02-10-25 10:32:01	02-10-25 10:39:59	7.96	100.0	99.6	100.0	1.69	0.06	3.76
28	4060	DISCHARGING	02-10-25 11:38:06	02-10-25 11:38:37	0.51	99.6	99.6	100.0	0.0	0.99	nan
28	4062	DISCHARGING	02-10-25 12:21:35	02-10-25 15:42:34	200.99	99.6	87.6	100.0	50.76	45.34	89.32
28	4063	DISCHARGING	02-10-25 16:24:01	02-10-25 16:27:14	3.23	87.6	87.6	100.0	0.0	0.44	nan
28	4064	DISCHARGING	02-10-25 16:41:48	02-10-25 17:30:30	48.71	87.6	83.6	100.0	16.92	16.24	96.01
28	4065	DISCHARGING	02-10-25 17:40:23	02-10-25 18:21:57	41.56	82.8	79.6	100.0	13.54	14.4	93.58
28	4066	DISCHARGING	02-10-25 18:38:24	02-10-25 18:44:31	6.11	78.8	78.4	100.0	1.69	1.71	99.17
28	4067	DISCHARGING	02-10-25 20:34:47	02-10-25 21:27:02	52.24	78.0	76.0	100.0	8.46	9.63	86.21
28	4068	DISCHARGING	02-10-25 21:38:34	02-10-25 21:39:22	0.8	75.2	75.2	100.0	0.0	0.87	nan
28	4069	DISCHARGING	02-10-25 21:54:11	02-10-25 22:45:44	51.54	74.8	70.4	100.0	18.61	18.81	98.94
28	4070	DISCHARGING	02-10-25 22:57:16	02-10-25 23:13:51	16.59	70.4	68.8	100.0	6.77	6.07	89.73
28	4071	DISCHARGING	02-10-25 23:30:18	02-10-25 23:44:43	14.41	67.2	66.4	100.0	3.38	4.32	72.19
28	4072	DISCHARGING	03-10-25 01:29:43	03-10-25 01:32:57	3.23	66.4	66.4	100.0	0.0	0.19	nan
28	4074	CHARGING	03-10-25 01:41:45	03-10-25 02:23:09	41.41	66.4	84.8	100.0	77.83	94.27	78.87
28	4075	CHARGING	03-10-25 02:39:03	03-10-25 02:45:24	6.34	91.6	100.0	100.0	35.53	12.6	35.45
28	4077	DISCHARGING	03-10-25 03:54:32	03-10-25 04:00:36	6.06	100.0	99.6	100.0	1.69	2.3	64.38
28	4079	DISCHARGING	03-10-25 04:40:09	03-10-25 04:43:19	3.17	99.6	99.6	100.0	0.0	0.04	nan
28	4080	DISCHARGING	03-10-25 06:48:59	03-10-25 06:50:56	1.95	99.6	99.6	100.0	0.0	0.12	nan
28	4081	DISCHARGING	03-10-25 17:24:11	03-10-25 17:27:31	3.34	99.6	99.6	100.0	0.0	0.19	nan
28	4083	DISCHARGING	06-10-25 05:52:25	06-10-25 08:57:36	185.19	99.6	76.4	100.0	98.14	97.56	99.41
28	4084	DISCHARGING	06-10-25 09:06:59	06-10-25 09:20:21	13.37	75.6	74.8	100.0	3.38	4.06	79.93
28	4085	DISCHARGING	06-10-25 09:43:23	06-10-25 11:49:51	126.47	72.8	65.6	100.0	30.46	24.98	82.02

Vehicle 28 – Session SoC Accuracy (Page 2/13)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
28	4086	DISCHARGING	06-10-25 12:37:59	06-10-25 12:39:30	1.5	65.6	65.6	100.0	0.0	0.56	nan
28	4087	DISCHARGING	06-10-25 13:58:26	06-10-25 14:00:46	2.34	65.6	65.6	100.0	0.0	0.0	nan
28	4088	DISCHARGING	06-10-25 14:58:50	06-10-25 15:07:35	8.75	65.2	64.8	100.0	1.69	0.43	25.25
28	4089	DISCHARGING	06-10-25 15:56:01	06-10-25 16:01:44	5.72	64.8	64.8	100.0	0.0	0.18	nan
28	4092	DISCHARGING	07-10-25 05:26:53	07-10-25 09:38:52	251.98	64.8	57.6	100.0	30.46	22.57	74.12
28	4093	DISCHARGING	07-10-25 10:01:20	07-10-25 10:03:16	1.94	56.8	56.8	100.0	0.0	0.1	nan
28	4095	DISCHARGING	07-10-25 11:27:47	07-10-25 11:57:47	30.0	56.4	56.4	100.0	0.0	0.48	nan
28	4096	DISCHARGING	07-10-25 12:44:43	07-10-25 13:22:32	37.81	56.4	56.0	100.0	1.69	8.26	-288.14
28	4098	DISCHARGING	07-10-25 13:52:58	07-10-25 14:00:32	7.56	55.6	55.6	100.0	0.0	1.1	nan
28	4099	DISCHARGING	07-10-25 15:30:56	07-10-25 16:12:56	41.99	55.6	54.8	100.0	3.38	4.51	66.63
28	4100	DISCHARGING	08-10-25 04:54:39	08-10-25 06:27:41	93.03	54.4	52.0	100.0	10.15	8.57	84.39
28	4101	DISCHARGING	08-10-25 10:57:32	08-10-25 11:37:51	40.31	52.0	50.8	100.0	5.08	4.82	94.94
28	4105	DISCHARGING	08-10-25 14:59:05	08-10-25 15:03:01	3.93	50.8	50.4	100.0	1.69	0.61	35.97
28	4107	CHARGING	08-10-25 15:40:22	08-10-25 15:55:50	15.47	50.4	55.2	100.0	20.3	20.14	99.18
28	4109	CHARGING	08-10-25 15:55:52	08-10-25 16:28:40	32.8	55.2	70.4	100.0	64.3	67.23	95.44
28	4110	CHARGING	09-10-25 02:36:46	09-10-25 03:09:54	33.12	70.4	82.8	100.0	52.45	70.23	66.11
28	4111	DISCHARGING	09-10-25 03:09:55	09-10-25 03:14:24	4.49	82.8	82.8	100.0	0.0	0.08	nan
28	4113	DISCHARGING	09-10-25 08:09:52	09-10-25 08:51:00	41.13	82.8	81.2	100.0	6.77	5.96	88.13
28	4114	DISCHARGING	09-10-25 09:08:32	09-10-25 10:01:17	52.76	80.8	80.0	100.0	3.38	3.02	89.22
28	4115	DISCHARGING	09-10-25 10:09:31	09-10-25 10:21:26	11.92	79.6	79.6	100.0	0.0	0.62	nan
28	4117	DISCHARGING	09-10-25 11:01:00	09-10-25 11:26:13	25.22	79.6	78.8	100.0	3.38	2.69	79.56
28	4118	DISCHARGING	09-10-25 11:37:45	09-10-25 12:39:53	62.13	78.4	77.2	100.0	5.08	2.59	50.98
28	4121	DISCHARGING	09-10-25 16:34:55	09-10-25 17:36:48	61.88	77.2	76.8	100.0	1.69	1.74	96.99
28	4122	DISCHARGING	09-10-25 17:43:24	09-10-25 17:58:18	14.9	76.8	76.4	100.0	1.69	0.19	11.46
28	4123	DISCHARGING	09-10-25 18:04:53	09-10-25 18:55:15	50.35	76.4	76.0	100.0	1.69	0.97	57.26
28	4125	DISCHARGING	09-10-25 19:24:45	09-10-25 19:41:27	16.7	76.0	76.0	100.0	0.0	0.14	nan
28	4126	DISCHARGING	09-10-25 19:55:43	09-10-25 20:54:34	58.84	76.0	75.6	100.0	1.69	0.13	7.56
28	4127	DISCHARGING	09-10-25 21:03:53	09-10-25 21:48:53	44.99	75.6	75.6	100.0	0.0	0.03	nan
28	4128	DISCHARGING	09-10-25 21:58:11	09-10-25 23:12:22	74.18	75.6	75.2	100.0	1.69	0.0	0.16
28	4130	DISCHARGING	09-10-25 23:43:38	10-10-25 00:51:46	68.13	75.2	75.2	100.0	0.0	0.0	nan

Vehicle 28 – Session SoC Accuracy (Page 3/13)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
28	4131	DISCHARGING	10-10-25 03:45:55	10-10-25 03:50:21	4.43	75.2	75.2	100.0	0.0	0.25	nan
28	4133	CHARGING	10-10-25 04:10:34	10-10-25 05:08:49	58.25	75.2	100.0	100.0	104.9	89.92	85.72
28	4134	DISCHARGING	10-10-25 05:08:50	10-10-25 05:13:47	4.95	100.0	100.0	100.0	0.0	0.0	nan
28	4137	DISCHARGING	10-10-25 06:13:23	10-10-25 07:30:21	76.97	99.6	99.2	100.0	1.69	0.05	3.18
28	4138	DISCHARGING	10-10-25 07:48:25	10-10-25 08:33:04	44.64	99.2	98.4	100.0	3.38	2.32	68.42
28	4139	DISCHARGING	10-10-25 08:42:22	10-10-25 08:58:02	15.67	98.4	97.2	100.0	5.08	3.98	78.43
28	4140	DISCHARGING	10-10-25 09:04:36	10-10-25 09:06:04	1.46	96.8	96.4	100.0	1.69	1.35	79.85
28	4141	DISCHARGING	10-10-25 09:14:17	10-10-25 11:11:09	116.85	95.6	87.6	100.0	33.84	34.72	97.39
28	4142	DISCHARGING	10-10-25 11:28:41	10-10-25 13:23:46	115.09	86.4	71.2	100.0	64.3	62.83	97.72
28	4143	DISCHARGING	10-10-25 13:35:18	10-10-25 14:12:08	36.83	71.2	65.2	100.0	25.38	19.21	75.67
28	4144	DISCHARGING	10-10-25 14:24:45	10-10-25 16:36:24	131.65	64.4	54.4	100.0	42.3	41.22	97.46
28	4145	DISCHARGING	10-10-25 17:02:45	10-10-25 17:42:10	39.42	50.4	42.8	100.0	32.15	33.22	96.66
28	4146	DISCHARGING	10-10-25 17:53:08	10-10-25 18:38:56	45.81	40.8	37.2	100.0	15.23	10.25	67.34
28	4147	DISCHARGING	10-10-25 18:48:24	11-10-25 00:43:45	355.35	37.2	34.0	100.0	13.54	4.47	33.03
28	4148	DISCHARGING	11-10-25 01:23:14	11-10-25 01:48:48	25.58	33.6	33.2	100.0	1.69	0.29	17.15
28	4150	DISCHARGING	11-10-25 02:11:00	11-10-25 02:33:49	22.82	33.2	32.8	100.0	1.69	0.45	26.46
28	4151	DISCHARGING	11-10-25 06:15:40	11-10-25 08:31:54	136.23	32.8	32.0	100.0	3.38	0.16	4.81
28	4153	DISCHARGING	11-10-25 11:20:32	11-10-25 11:24:09	3.63	31.6	31.6	100.0	0.0	0.09	nan
28	4155	DISCHARGING	12-10-25 00:33:18	12-10-25 02:17:39	104.34	31.6	30.8	100.0	3.38	2.82	83.3
28	4157	DISCHARGING	12-10-25 09:58:48	12-10-25 10:29:02	30.22	30.0	28.8	100.0	5.08	3.99	78.63
28	4158	DISCHARGING	12-10-25 10:44:35	12-10-25 10:50:04	5.49	28.8	28.8	100.0	0.0	0.65	nan
28	4161	DISCHARGING	12-10-25 12:19:56	12-10-25 12:25:22	5.43	28.4	28.4	100.0	0.0	0.18	nan
28	4162	CHARGING	12-10-25 12:25:23	12-10-25 12:26:58	1.58	28.4	28.4	100.0	0.0	0.66	nan
28	4164	CHARGING	12-10-25 12:27:00	12-10-25 13:17:13	50.21	28.4	72.4	100.0	186.12	196.63	94.35
28	4165	CHARGING	12-10-25 13:41:52	12-10-25 14:17:48	35.93	96.8	100.0	100.0	13.54	18.35	64.43
28	4166	DISCHARGING	12-10-25 14:17:49	12-10-25 14:32:10	14.35	100.0	99.6	100.0	1.69	0.4	23.68
28	4167	DISCHARGING	12-10-25 15:33:19	12-10-25 15:42:58	9.66	99.6	99.6	100.0	0.0	0.36	nan
28	4168	DISCHARGING	12-10-25 15:58:47	12-10-25 16:05:43	6.94	99.6	99.2	100.0	1.69	1.94	85.11
28	4169	DISCHARGING	12-10-25 16:25:27	12-10-25 17:41:56	76.48	97.2	92.0	100.0	22.0	19.79	89.99
28	4170	DISCHARGING	12-10-25 18:04:23	12-10-25 18:04:42	0.32	92.0	90.4	100.0	6.77	0.18	2.68

Vehicle 28 – Session SoC Accuracy (Page 4/13)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
28	4171	DISCHARGING	12-10-25 18:17:20	12-10-25 18:34:45	17.41	90.0	88.0	100.0	8.46	9.33	89.7
28	4172	DISCHARGING	12-10-25 18:42:26	12-10-25 19:10:01	27.58	87.2	82.4	100.0	20.3	19.88	97.91
28	4173	DISCHARGING	12-10-25 19:39:38	12-10-25 19:57:30	17.87	77.6	73.6	100.0	16.92	14.52	85.84
28	4174	DISCHARGING	12-10-25 20:22:12	12-10-25 21:01:17	39.08	69.6	60.0	100.0	40.61	40.37	99.41
28	4175	DISCHARGING	12-10-25 21:07:19	12-10-25 21:25:31	18.21	59.6	56.8	100.0	11.84	11.79	99.56
28	4178	CHARGING	12-10-25 21:31:16	12-10-25 21:34:12	2.93	56.8	58.4	100.0	6.77	7.41	90.53
28	4179	CHARGING	12-10-25 21:40:48	12-10-25 21:55:07	14.33	64.4	77.2	100.0	54.14	61.86	85.75
28	4180	DISCHARGING	12-10-25 22:28:03	12-10-25 22:57:31	29.47	90.8	84.0	100.0	28.76	32.79	86.01
28	4181	DISCHARGING	12-10-25 23:32:04	13-10-25 00:59:12	87.13	75.2	55.6	100.0	82.91	83.97	98.72
28	4182	DISCHARGING	13-10-25 01:08:32	13-10-25 01:44:35	36.06	53.6	50.8	100.0	11.84	11.88	99.69
28	4183	DISCHARGING	13-10-25 02:01:04	13-10-25 02:22:53	21.83	50.4	49.2	100.0	5.08	4.59	90.37
28	4186	DISCHARGING	13-10-25 03:38:20	13-10-25 04:25:43	47.39	48.8	48.8	100.0	0.0	0.02	nan
28	4187	DISCHARGING	13-10-25 05:04:10	13-10-25 05:10:31	6.36	48.8	48.8	100.0	0.0	0.01	nan
28	4189	CHARGING	13-10-25 05:26:12	13-10-25 06:37:37	71.42	48.4	76.0	100.0	116.75	122.66	94.94
28	4190	CHARGING	13-10-25 06:48:34	13-10-25 07:14:27	25.89	80.0	86.4	100.0	27.07	45.53	31.81
28	4191	CHARGING	13-10-25 09:44:41	13-10-25 09:48:43	4.04	86.4	86.4	100.0	0.0	2.24	nan
28	4193	DISCHARGING	13-10-25 09:54:47	13-10-25 10:38:42	43.91	100.0	98.4	100.0	6.77	5.15	76.15
28	4194	DISCHARGING	13-10-25 11:10:59	13-10-25 11:18:00	7.02	98.0	97.6	100.0	1.69	0.55	32.38
28	4195	DISCHARGING	13-10-25 11:26:13	13-10-25 11:27:05	0.87	97.2	97.2	100.0	0.0	0.23	nan
28	4198	DISCHARGING	13-10-25 15:44:07	13-10-25 15:51:21	7.23	96.8	96.8	100.0	0.0	0.34	nan
28	4206	DISCHARGING	15-10-25 13:35:46	15-10-25 13:44:45	8.98	96.0	96.0	100.0	0.0	0.01	nan
28	4209	DISCHARGING	15-10-25 16:14:53	15-10-25 16:19:58	5.08	95.2	95.2	100.0	0.0	0.09	nan
28	4210	DISCHARGING	15-10-25 16:25:14	15-10-25 16:30:00	4.75	95.2	95.2	100.0	0.0	1.58	nan
28	4213	CHARGING	15-10-25 16:32:41	15-10-25 16:52:19	19.62	95.2	100.0	100.0	20.3	16.76	82.54
28	4214	DISCHARGING	15-10-25 16:52:20	15-10-25 17:13:06	20.78	100.0	99.6	100.0	1.69	0.06	3.86
28	4216	DISCHARGING	15-10-25 21:02:00	16-10-25 00:33:35	211.59	99.6	86.4	100.0	55.84	52.83	94.62
28	4217	CHARGING	16-10-25 00:33:36	16-10-25 00:37:04	3.46	86.4	86.4	100.0	0.0	0.45	nan
28	4218	DISCHARGING	16-10-25 00:37:04	16-10-25 00:37:17	0.21	86.4	86.4	100.0	0.0	0.0	nan
28	4219	CHARGING	16-10-25 00:37:18	16-10-25 00:40:29	3.19	86.4	86.4	100.0	0.0	0.09	nan
28	4221	CHARGING	16-10-25 00:40:35	16-10-25 00:54:04	13.48	86.4	90.8	100.0	18.61	38.86	-8.79

Vehicle 28 – Session SoC Accuracy (Page 5/13)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
28	4222	DISCHARGING	16-10-25 00:54:05	16-10-25 01:42:24	48.31	90.8	82.8	100.0	33.84	34.41	98.33
28	4223	DISCHARGING	16-10-25 02:04:53	16-10-25 02:35:33	30.67	79.6	74.8	100.0	20.3	22.8	87.68
28	4225	DISCHARGING	16-10-25 02:35:35	16-10-25 02:48:20	12.76	74.8	72.8	100.0	8.46	8.06	95.3
28	4226	DISCHARGING	16-10-25 03:14:39	16-10-25 06:04:16	169.62	72.8	51.2	99.68	91.07	79.22	86.98
28	4227	DISCHARGING	16-10-25 06:14:12	16-10-25 08:32:23	138.18	50.4	43.2	99.6	30.33	26.49	87.32
28	4228	DISCHARGING	16-10-25 08:51:33	16-10-25 09:07:22	15.82	43.2	42.8	99.6	1.68	2.44	55.03
28	4229	CHARGING	16-10-25 09:07:23	16-10-25 09:09:11	1.81	42.8	42.8	99.6	0.0	0.69	nan
28	4230	DISCHARGING	16-10-25 09:09:12	16-10-25 09:09:17	0.08	42.8	42.8	99.6	0.0	0.29	nan
28	4235	CHARGING	16-10-25 09:13:59	16-10-25 09:17:24	3.42	42.8	42.8	99.6	0.0	0.46	nan
28	4237	CHARGING	16-10-25 09:17:33	16-10-25 09:26:14	8.68	42.8	46.0	99.6	13.48	14.62	91.54
28	4238	CHARGING	16-10-25 09:41:01	16-10-25 10:07:35	26.56	52.4	64.4	99.6	50.56	42.03	83.14
28	4239	CHARGING	16-10-25 10:20:44	16-10-25 11:17:44	56.99	72.8	100.0	99.6	114.6	87.04	75.95
28	4242	DISCHARGING	16-10-25 15:39:12	16-10-25 16:51:06	71.9	100.0	95.2	99.6	20.22	16.67	82.44
28	4243	DISCHARGING	16-10-25 17:00:26	16-10-25 17:10:20	9.91	94.4	94.0	99.6	1.68	2.19	69.94
28	4245	DISCHARGING	16-10-25 17:26:49	16-10-25 18:25:18	58.48	93.2	89.2	99.6	16.85	16.13	95.72
28	4246	DISCHARGING	16-10-25 18:36:49	16-10-25 19:17:22	40.55	86.8	81.6	99.6	21.91	23.83	91.23
28	4247	DISCHARGING	16-10-25 19:25:37	16-10-25 21:05:00	99.39	80.8	62.4	99.6	77.52	79.32	97.68
28	4248	DISCHARGING	16-10-25 21:16:03	16-10-25 21:16:47	0.73	60.8	60.8	99.6	0.0	0.36	nan
28	4249	CHARGING	16-10-25 21:20:40	16-10-25 21:46:11	25.5	60.8	80.0	99.6	80.89	95.2	82.32
28	4250	DISCHARGING	16-10-25 21:46:15	16-10-25 22:08:02	21.8	80.0	75.6	99.6	18.54	19.25	96.13
28	4251	DISCHARGING	16-10-25 22:14:25	17-10-25 00:42:06	147.69	74.4	45.6	99.6	121.34	121.49	99.88
28	4252	DISCHARGING	17-10-25 00:50:23	17-10-25 01:13:53	23.5	45.6	42.8	99.6	11.8	8.49	71.98
28	4253	DISCHARGING	17-10-25 01:18:56	17-10-25 02:04:27	45.51	42.8	42.0	99.6	3.37	1.07	31.87
28	4254	DISCHARGING	17-10-25 02:18:36	17-10-25 02:50:12	31.6	42.0	42.0	99.6	0.0	0.33	nan
28	4259	CHARGING	17-10-25 02:53:42	17-10-25 04:32:34	98.87	42.0	89.6	99.6	200.54	234.43	83.1
28	4260	CHARGING	17-10-25 04:42:29	17-10-25 04:43:36	1.11	89.6	100.0	99.6	43.82	1.39	3.17
28	4263	DISCHARGING	17-10-25 05:14:26	17-10-25 05:28:44	14.31	100.0	99.2	99.6	3.37	1.79	53.05
28	4264	DISCHARGING	17-10-25 05:47:12	17-10-25 06:03:04	15.87	99.2	98.4	99.6	3.37	2.62	77.84
28	4265	DISCHARGING	17-10-25 06:13:24	17-10-25 06:18:04	4.67	98.4	98.4	99.6	0.0	0.04	nan
28	4266	DISCHARGING	17-10-25 06:35:38	17-10-25 07:07:27	31.82	98.4	97.6	99.6	3.37	2.54	75.49

Vehicle 28 – Session SoC Accuracy (Page 6/13)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
28	4268	DISCHARGING	17-10-25 07:40:54	17-10-25 08:01:41	20.78	97.6	97.2	99.6	1.68	1.6	94.87
28	4269	DISCHARGING	17-10-25 08:16:11	17-10-25 08:46:07	29.93	96.8	94.4	99.6	10.11	10.28	98.34
28	4270	DISCHARGING	17-10-25 08:54:24	17-10-25 10:04:53	70.47	94.4	91.2	99.6	13.48	11.19	82.97
28	4271	DISCHARGING	17-10-25 10:14:48	17-10-25 10:28:49	14.03	91.2	90.0	99.6	5.06	3.54	70.03
28	4272	DISCHARGING	17-10-25 10:40:05	17-10-25 13:21:46	161.69	89.6	76.0	99.6	57.3	54.72	95.5
28	4273	CHARGING	17-10-25 13:23:20	17-10-25 13:56:04	32.75	76.0	90.4	99.6	60.67	103.94	28.68
28	4274	DISCHARGING	17-10-25 13:56:06	17-10-25 14:12:04	15.96	90.4	88.4	99.6	8.43	7.19	85.36
28	4275	DISCHARGING	17-10-25 14:25:01	17-10-25 15:15:59	50.97	86.4	78.4	99.6	33.7	37.1	89.93
28	4276	DISCHARGING	17-10-25 15:49:00	17-10-25 16:30:24	41.4	73.2	67.2	99.6	25.28	27.87	89.74
28	4277	DISCHARGING	17-10-25 16:57:15	17-10-25 17:17:20	20.07	63.2	60.4	99.6	11.8	7.09	60.07
28	4278	DISCHARGING	17-10-25 17:30:32	17-10-25 17:41:55	11.38	60.4	58.0	99.6	10.11	3.38	33.47
28	4279	DISCHARGING	17-10-25 17:48:17	17-10-25 18:15:14	26.95	56.8	53.6	99.6	13.48	10.88	80.71
28	4280	DISCHARGING	17-10-25 18:23:37	17-10-25 19:18:10	54.55	52.4	48.4	99.6	16.85	18.66	89.27
28	4281	DISCHARGING	17-10-25 19:31:22	17-10-25 20:16:31	45.14	47.2	44.4	99.6	11.8	12.98	89.97
28	4282	CHARGING	17-10-25 20:16:34	17-10-25 20:38:46	22.2	44.4	53.6	99.6	38.76	40.74	94.88
28	4283	CHARGING	17-10-25 20:48:42	17-10-25 20:56:28	7.78	58.0	61.6	99.6	15.17	17.43	85.11
28	4284	CHARGING	17-10-25 21:14:36	17-10-25 21:34:07	19.52	74.0	90.0	99.6	67.41	77.23	85.43
28	4285	DISCHARGING	17-10-25 21:34:09	17-10-25 22:24:44	50.59	90.0	85.6	99.6	18.54	19.39	95.39
28	4286	DISCHARGING	17-10-25 22:39:17	18-10-25 00:59:44	140.44	84.4	68.0	99.6	69.1	67.41	97.56
28	4287	DISCHARGING	18-10-25 01:12:42	18-10-25 02:06:31	53.81	65.6	54.4	99.6	47.19	49.71	94.64
28	4288	DISCHARGING	18-10-25 02:26:17	18-10-25 02:55:17	28.99	50.8	46.8	99.6	16.85	17.55	95.84
28	4289	DISCHARGING	18-10-25 03:01:17	18-10-25 03:05:06	3.82	46.8	46.8	99.6	0.0	0.13	nan
28	4290	CHARGING	18-10-25 03:05:08	18-10-25 03:07:10	2.04	46.8	47.6	99.6	3.37	3.7	90.17
28	4291	CHARGING	18-10-25 03:12:11	18-10-25 03:13:08	0.96	49.6	50.0	99.6	1.68	3.64	-16.06
28	4293	CHARGING	18-10-25 03:15:03	18-10-25 03:16:12	1.15	50.0	50.4	99.6	1.68	0.45	26.44
28	4295	CHARGING	18-10-25 03:18:16	18-10-25 03:57:17	39.02	50.4	79.6	99.6	123.02	131.97	92.73
28	4296	CHARGING	18-10-25 04:03:52	18-10-25 04:06:31	2.65	84.0	86.4	99.6	10.11	12.13	80.0
28	4297	DISCHARGING	18-10-25 04:06:32	18-10-25 05:38:59	92.45	86.4	66.4	99.6	84.26	87.7	95.92
28	4298	DISCHARGING	18-10-25 05:48:36	18-10-25 06:37:25	48.81	63.6	53.2	99.6	43.82	49.24	87.61
28	4299	DISCHARGING	18-10-25 07:08:41	18-10-25 07:10:12	1.5	49.2	49.2	99.6	0.0	2.33	nan

Vehicle 28 – Session SoC Accuracy (Page 7/13)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
28	4300	DISCHARGING	18-10-25 07:28:03	18-10-25 08:40:07	72.07	47.6	44.4	99.6	13.48	11.19	82.98
28	4313	DISCHARGING	18-10-25 10:14:45	18-10-25 10:16:02	1.28	44.4	44.4	99.6	0.0	0.05	nan
28	4314	CHARGING	18-10-25 10:17:46	18-10-25 11:30:52	73.1	44.4	100.0	99.6	234.25	203.65	86.94
28	4315	DISCHARGING	18-10-25 12:24:54	18-10-25 12:51:27	26.54	100.0	99.2	99.6	3.37	0.49	14.62
28	4316	DISCHARGING	18-10-25 13:31:57	18-10-25 13:54:33	22.6	99.2	98.8	99.6	1.68	0.85	50.46
28	4317	DISCHARGING	18-10-25 15:07:28	18-10-25 15:18:49	11.36	98.8	98.8	99.6	0.0	4.29	nan
28	4318	DISCHARGING	18-10-25 15:41:51	18-10-25 17:07:54	86.05	98.8	94.0	99.6	20.22	14.7	72.68
28	4319	DISCHARGING	18-10-25 17:15:41	18-10-25 17:29:22	13.68	94.0	92.8	99.6	5.06	4.55	89.95
28	4320	DISCHARGING	18-10-25 17:45:53	18-10-25 18:52:02	66.15	92.0	88.4	99.6	15.17	12.18	80.3
28	4321	DISCHARGING	18-10-25 19:02:19	18-10-25 21:13:24	131.07	88.4	78.8	99.6	40.45	37.34	92.32
28	4322	CHARGING	18-10-25 21:14:20	18-10-25 21:39:19	24.98	78.8	90.0	99.6	47.19	90.27	8.7
28	4323	DISCHARGING	18-10-25 21:39:22	18-10-25 23:26:08	106.76	90.0	74.0	99.6	67.41	68.08	99.01
28	4324	DISCHARGING	19-10-25 00:00:44	19-10-25 01:44:22	103.62	69.6	54.0	99.6	65.72	67.35	97.53
28	4325	DISCHARGING	19-10-25 01:55:55	19-10-25 03:52:22	116.44	52.4	42.4	99.6	42.13	43.12	97.66
28	4326	CHARGING	19-10-25 03:54:57	19-10-25 04:53:53	58.93	42.4	100.0	99.6	242.67	217.01	89.43
28	4331	DISCHARGING	19-10-25 06:05:52	19-10-25 06:17:18	11.43	100.0	99.2	99.6	3.37	1.22	36.16
28	4332	DISCHARGING	19-10-25 07:05:20	19-10-25 07:09:45	4.42	99.2	99.2	99.6	0.0	0.0	nan
28	4335	DISCHARGING	19-10-25 09:24:39	19-10-25 09:32:32	7.89	99.2	99.2	99.6	0.0	0.63	nan
28	4336	DISCHARGING	19-10-25 09:44:53	19-10-25 09:48:58	4.08	99.2	98.8	99.6	1.68	0.35	20.68
28	4338	DISCHARGING	19-10-25 17:37:33	19-10-25 17:42:09	4.61	98.8	98.8	99.6	0.0	0.9	nan
28	4339	DISCHARGING	20-10-25 09:42:33	20-10-25 09:46:54	4.36	98.8	98.8	99.6	0.0	2.03	nan
28	4340	DISCHARGING	21-10-25 08:24:34	21-10-25 08:29:34	4.99	98.8	98.8	99.6	0.0	0.0	nan
28	4341	DISCHARGING	21-10-25 09:12:24	21-10-25 09:43:50	31.43	98.8	98.4	99.6	1.68	1.02	60.82
28	4342	DISCHARGING	21-10-25 10:00:23	21-10-25 13:22:03	201.68	97.2	84.0	99.6	55.61	54.08	97.25
28	4343	DISCHARGING	21-10-25 14:09:45	21-10-25 15:45:34	95.82	77.2	60.4	99.6	70.78	74.1	95.3
28	4344	CHARGING	21-10-25 15:46:25	21-10-25 16:11:51	25.42	60.4	74.8	99.6	60.67	65.97	91.25
28	4346	CHARGING	21-10-25 16:15:16	21-10-25 16:35:35	20.3	74.8	84.8	99.6	42.13	67.96	38.7
28	4347	DISCHARGING	21-10-25 16:35:37	21-10-25 18:13:31	97.9	84.8	67.2	99.6	74.15	78.3	94.4
28	4348	DISCHARGING	21-10-25 18:23:27	21-10-25 20:23:24	119.96	64.4	50.0	99.6	60.67	62.26	97.38
28	4349	CHARGING	21-10-25 20:23:49	21-10-25 20:24:40	0.85	50.0	50.0	99.6	0.0	0.31	nan

Vehicle 28 – Session SoC Accuracy (Page 8/13)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
28	4351	CHARGING	21-10-25 20:25:04	21-10-25 20:34:24	9.33	50.0	56.4	99.6	26.96	27.68	97.36
28	4352	CHARGING	21-10-25 20:42:41	21-10-25 20:53:39	10.97	62.0	67.6	99.6	23.59	32.38	62.73
28	4353	DISCHARGING	21-10-25 20:53:40	21-10-25 20:56:34	2.9	68.0	68.0	99.6	0.0	0.11	nan
28	4354	CHARGING	21-10-25 20:56:49	21-10-25 21:45:50	49.01	68.0	100.0	99.6	134.82	119.35	88.53
28	4362	DISCHARGING	21-10-25 22:04:21	21-10-25 23:53:59	109.63	100.0	91.6	99.6	35.39	31.08	87.82
28	4363	DISCHARGING	22-10-25 00:03:54	22-10-25 01:24:50	80.94	91.2	85.6	99.6	23.59	22.5	95.36
28	4364	CHARGING	22-10-25 01:28:04	22-10-25 01:47:20	19.28	85.6	90.8	99.6	21.91	44.12	-1.36
28	4365	DISCHARGING	22-10-25 01:47:22	22-10-25 03:09:45	82.39	90.8	80.8	99.6	42.13	41.28	97.98
28	4366	DISCHARGING	22-10-25 03:17:48	22-10-25 03:19:19	1.52	79.2	78.8	99.6	1.68	4.48	-65.93
28	4367	DISCHARGING	22-10-25 03:34:11	22-10-25 03:38:06	3.92	76.4	75.6	99.6	3.37	2.86	84.91
28	4369	DISCHARGING	22-10-25 04:25:23	22-10-25 08:07:11	221.81	72.0	45.2	99.6	112.91	114.53	98.56
28	4370	DISCHARGING	22-10-25 08:14:18	22-10-25 08:32:41	18.38	44.8	42.8	99.6	8.43	8.51	99.06
28	4373	DISCHARGING	22-10-25 13:22:14	22-10-25 15:01:16	99.04	42.0	42.0	99.6	0.0	0.04	nan
28	4374	CHARGING	22-10-25 15:09:15	22-10-25 15:19:02	9.78	46.0	54.4	99.6	35.39	42.9	78.78
28	4375	CHARGING	22-10-25 15:33:42	22-10-25 16:08:28	34.77	67.6	100.0	99.6	136.5	126.35	92.56
28	4377	DISCHARGING	22-10-25 21:33:45	22-10-25 23:29:12	115.46	100.0	90.8	99.6	38.76	37.04	95.55
28	4378	DISCHARGING	22-10-25 23:40:47	22-10-25 23:49:53	9.09	88.4	86.8	99.6	6.74	5.85	86.76
28	4379	DISCHARGING	23-10-25 00:25:53	23-10-25 00:59:33	33.67	81.6	74.4	99.6	30.33	31.73	95.39
28	4380	DISCHARGING	23-10-25 01:30:33	23-10-25 01:59:49	29.26	68.8	63.6	99.6	21.91	22.96	95.21
28	4381	CHARGING	23-10-25 02:00:30	23-10-25 02:41:42	41.2	63.6	90.0	99.6	111.22	143.12	71.33
28	4382	DISCHARGING	23-10-25 02:41:46	23-10-25 06:47:35	245.82	90.0	52.8	99.6	156.73	150.38	95.95
28	4383	DISCHARGING	23-10-25 06:59:10	23-10-25 07:12:47	13.62	52.8	52.4	99.6	1.68	1.26	75.01
28	4384	CHARGING	23-10-25 07:15:19	23-10-25 07:30:51	15.52	52.4	68.0	99.6	65.72	70.63	92.53
28	4385	DISCHARGING	23-10-25 08:12:43	23-10-25 08:19:36	6.88	100.0	99.6	99.6	1.68	0.62	36.72
28	4386	DISCHARGING	23-10-25 10:46:36	23-10-25 11:46:06	59.51	99.6	94.4	99.6	21.91	11.3	51.6
28	4387	DISCHARGING	23-10-25 11:55:54	23-10-25 11:57:07	1.22	94.4	94.4	99.6	0.0	0.66	nan
28	4388	DISCHARGING	23-10-25 14:18:15	23-10-25 15:03:30	45.24	94.4	94.0	99.6	1.68	20.53	-1018.13
28	4389	DISCHARGING	23-10-25 15:47:57	23-10-25 16:04:19	16.36	90.8	90.0	99.6	3.37	3.46	97.23
28	4391	CHARGING	23-10-25 16:37:36	23-10-25 17:05:24	27.8	90.0	100.0	99.6	42.13	43.5	96.75
28	4392	DISCHARGING	23-10-25 17:05:25	23-10-25 17:15:12	9.79	100.0	99.6	99.6	1.68	0.16	9.55

Vehicle 28 – Session SoC Accuracy (Page 9/13)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
28	4393	DISCHARGING	23-10-25 20:52:13	23-10-25 22:40:45	108.53	99.6	95.6	99.6	16.85	13.55	80.42
28	4394	DISCHARGING	23-10-25 22:52:17	23-10-25 23:58:31	66.22	94.0	89.2	99.6	20.22	22.86	86.93
28	4395	DISCHARGING	24-10-25 00:08:29	24-10-25 00:25:14	16.76	88.4	87.6	99.6	3.37	4.18	75.9
28	4396	CHARGING	24-10-25 00:28:06	24-10-25 00:30:42	2.61	87.6	88.4	99.6	3.37	3.06	90.67
28	4398	CHARGING	24-10-25 00:33:11	24-10-25 00:44:23	11.2	88.4	92.0	99.6	15.17	36.82	-42.76
28	4399	DISCHARGING	24-10-25 00:44:25	24-10-25 05:56:42	312.28	92.0	58.4	99.6	141.56	141.63	99.95
28	4400	DISCHARGING	24-10-25 07:07:11	24-10-25 07:15:08	7.95	52.8	52.4	99.6	1.68	1.67	99.2
28	4401	DISCHARGING	24-10-25 07:34:40	24-10-25 07:58:27	23.78	51.6	50.0	99.6	6.74	5.04	74.8
28	4402	DISCHARGING	24-10-25 08:06:30	24-10-25 08:58:12	51.69	49.6	46.4	99.6	13.48	12.02	89.13
28	4403	DISCHARGING	24-10-25 09:08:24	24-10-25 09:10:25	2.01	46.4	46.4	99.6	0.0	1.79	nan
28	4404	CHARGING	24-10-25 10:05:55	24-10-25 11:09:37	63.71	46.4	100.0	99.6	225.82	217.63	96.37
28	4411	DISCHARGING	24-10-25 11:21:23	24-10-25 11:41:59	20.61	100.0	99.2	99.6	3.37	2.49	73.81
28	4412	DISCHARGING	24-10-25 12:20:59	24-10-25 12:44:12	23.21	99.2	98.8	99.6	1.68	0.74	43.6
28	4413	DISCHARGING	24-10-25 13:42:21	24-10-25 13:43:28	1.13	98.8	98.8	99.6	0.0	0.03	nan
28	4414	DISCHARGING	24-10-25 15:06:35	24-10-25 15:07:59	1.41	98.8	98.8	99.6	0.0	0.02	nan
28	4415	DISCHARGING	24-10-25 20:33:28	24-10-25 20:34:27	0.99	98.8	98.8	99.6	0.0	0.01	nan
28	4416	DISCHARGING	24-10-25 21:37:46	24-10-25 21:40:46	3.0	98.8	98.8	99.6	0.0	1.94	nan
28	4417	DISCHARGING	24-10-25 21:57:08	24-10-25 22:08:17	11.16	98.8	98.4	99.6	1.68	3.0	22.05
28	4419	DISCHARGING	24-10-25 22:12:24	24-10-25 22:13:30	1.09	98.4	98.4	99.6	0.0	0.02	nan
28	4420	CHARGING	24-10-25 22:16:17	24-10-25 22:20:23	4.09	98.4	100.0	99.6	6.74	4.99	74.02
28	4422	DISCHARGING	24-10-25 22:30:29	24-10-25 23:44:43	74.22	100.0	92.8	99.6	30.33	29.7	97.9
28	4423	DISCHARGING	24-10-25 23:59:20	25-10-25 03:02:28	183.13	91.6	62.8	99.6	121.34	116.83	96.29
28	4424	DISCHARGING	25-10-25 03:18:39	25-10-25 03:23:31	4.87	60.0	60.0	99.6	0.0	0.01	nan
28	4425	CHARGING	25-10-25 03:23:32	25-10-25 04:02:54	39.36	60.0	86.0	99.6	109.54	135.34	76.45
28	4426	DISCHARGING	25-10-25 04:02:55	25-10-25 04:40:49	37.89	86.0	77.6	99.6	35.39	38.43	91.4
28	4427	DISCHARGING	25-10-25 05:26:53	25-10-25 07:21:05	114.2	67.2	47.6	99.6	82.58	83.96	98.32
28	4428	DISCHARGING	25-10-25 07:29:02	25-10-25 07:53:41	24.65	46.8	46.0	99.6	3.37	3.54	95.04
28	4429	DISCHARGING	25-10-25 08:00:03	25-10-25 08:32:10	32.13	45.6	44.0	99.6	6.74	5.38	79.82
28	4430	DISCHARGING	25-10-25 08:38:31	25-10-25 09:24:38	46.12	44.0	42.4	99.6	6.74	4.43	65.67
28	4431	CHARGING	25-10-25 09:24:39	25-10-25 11:12:55	108.26	42.4	100.0	99.6	242.67	232.17	95.67

Vehicle 28 – Session SoC Accuracy (Page 10/13)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
28	4432	DISCHARGING	25-10-25 11:12:56	25-10-25 11:17:47	4.85	100.0	99.6	99.6	1.68	0.5	29.6
28	4433	DISCHARGING	25-10-25 12:48:47	25-10-25 12:52:25	3.63	99.6	99.6	99.6	0.0	1.75	nan
28	4434	DISCHARGING	25-10-25 13:22:38	25-10-25 13:37:07	14.49	99.6	99.2	99.6	1.68	1.9	87.19
28	4435	DISCHARGING	25-10-25 14:38:56	25-10-25 14:42:42	3.77	99.2	98.8	99.6	1.68	0.58	34.48
28	4436	DISCHARGING	25-10-25 15:20:05	25-10-25 16:31:01	70.93	98.8	95.6	99.6	13.48	10.6	78.66
28	4437	DISCHARGING	25-10-25 16:36:37	25-10-25 16:41:22	4.75	95.6	95.6	99.6	0.0	0.73	nan
28	4438	DISCHARGING	25-10-25 16:51:17	25-10-25 17:03:39	12.38	94.8	94.0	99.6	3.37	0.42	12.49
28	4439	DISCHARGING	25-10-25 17:15:25	25-10-25 17:20:19	4.91	93.2	93.2	99.6	0.0	1.1	nan
28	4440	DISCHARGING	25-10-25 17:31:38	25-10-25 19:40:18	128.67	92.0	84.0	99.6	33.7	32.58	96.68
28	4441	DISCHARGING	25-10-25 20:06:41	25-10-25 20:40:33	33.87	80.8	77.6	99.6	13.48	10.51	77.98
28	4442	CHARGING	25-10-25 20:40:34	25-10-25 21:11:19	30.75	77.6	100.0	99.6	94.37	96.38	97.87
28	4443	DISCHARGING	25-10-25 21:11:20	25-10-25 23:48:43	157.38	100.0	75.6	99.6	102.8	102.81	99.99
28	4444	DISCHARGING	26-10-25 00:48:00	26-10-25 01:44:02	56.02	67.2	61.2	99.6	25.28	26.2	96.37
28	4445	DISCHARGING	26-10-25 02:20:18	26-10-25 02:51:48	31.49	58.4	56.0	99.6	10.11	10.5	96.21
28	4449	CHARGING	26-10-25 03:02:27	26-10-25 03:56:43	54.27	56.0	100.0	99.6	185.38	195.76	94.4
28	4452	DISCHARGING	26-10-25 04:51:00	26-10-25 04:54:05	3.09	100.0	99.6	99.6	1.68	0.22	12.76
28	4453	DISCHARGING	26-10-25 05:01:02	26-10-25 05:29:53	28.86	99.6	98.4	99.6	5.06	4.72	93.28
28	4454	DISCHARGING	26-10-25 06:52:22	26-10-25 06:56:46	4.39	98.4	98.4	99.6	0.0	0.17	nan
28	4456	DISCHARGING	26-10-25 08:16:30	26-10-25 08:16:47	0.29	98.4	98.4	99.6	0.0	0.86	nan
28	4457	DISCHARGING	26-10-25 08:38:44	26-10-25 10:04:44	86.0	98.4	94.0	99.6	18.54	14.99	80.86
28	4458	DISCHARGING	26-10-25 10:22:52	26-10-25 12:23:02	120.17	92.8	82.8	99.6	42.13	41.85	99.33
28	4459	DISCHARGING	26-10-25 12:47:46	26-10-25 15:10:47	143.02	79.2	56.8	99.6	94.37	99.9	94.14
28	4460	CHARGING	26-10-25 15:10:49	26-10-25 15:50:24	39.58	56.8	83.6	99.6	112.91	137.22	78.47
28	4461	DISCHARGING	26-10-25 16:34:51	26-10-25 16:34:55	0.08	76.8	76.8	99.6	0.0	0.25	nan
28	4462	DISCHARGING	26-10-25 16:48:08	26-10-25 16:48:36	0.46	73.2	73.2	99.6	0.0	1.27	nan
28	4463	DISCHARGING	26-10-25 16:53:36	26-10-25 17:07:24	13.79	72.0	68.8	99.6	13.48	14.72	90.84
28	4464	DISCHARGING	26-10-25 17:13:42	26-10-25 17:27:06	13.39	68.0	64.8	99.6	13.48	16.93	74.39
28	4465	DISCHARGING	26-10-25 17:33:27	26-10-25 18:54:14	80.79	62.8	47.6	99.6	64.04	64.74	98.91
28	4466	DISCHARGING	26-10-25 19:00:35	26-10-25 19:46:38	46.05	46.8	45.6	99.6	5.06	0.85	16.84
28	4467	CHARGING	26-10-25 19:47:41	26-10-25 21:30:24	102.73	45.6	100.0	99.6	229.19	222.32	97.0

Vehicle 28 – Session SoC Accuracy (Page 11/13)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
28	4468	DISCHARGING	26-10-25 21:30:26	26-10-25 23:13:06	102.68	100.0	91.6	99.6	35.39	32.93	93.05
28	4469	DISCHARGING	26-10-25 23:32:57	27-10-25 00:17:50	44.89	89.2	86.4	99.6	11.8	8.49	72.01
28	4470	CHARGING	27-10-25 00:19:12	27-10-25 00:27:51	8.64	86.4	90.0	99.6	15.17	14.65	96.57
28	4471	DISCHARGING	27-10-25 00:28:36	27-10-25 02:01:38	93.04	90.0	76.8	99.6	55.61	55.34	99.51
28	4472	CHARGING	27-10-25 02:28:23	27-10-25 02:32:06	3.72	84.8	86.0	99.6	5.06	14.48	-86.49
28	4474	DISCHARGING	27-10-25 02:38:17	27-10-25 07:21:20	283.06	86.0	58.4	99.6	116.28	116.76	99.59
28	4475	DISCHARGING	27-10-25 07:47:46	27-10-25 07:48:01	0.26	56.8	56.4	99.6	1.68	1.44	85.23
28	4476	DISCHARGING	27-10-25 08:05:53	27-10-25 08:25:23	19.5	55.6	54.4	99.6	5.06	5.94	82.47
28	4477	CHARGING	27-10-25 08:25:24	27-10-25 08:28:58	3.57	54.4	54.4	99.6	0.0	0.25	nan
28	4483	CHARGING	27-10-25 08:33:50	27-10-25 09:21:12	47.37	54.4	100.0	99.6	192.12	170.62	88.81
28	4487	DISCHARGING	27-10-25 10:25:13	27-10-25 10:26:11	0.96	100.0	100.0	99.6	0.0	0.07	nan
28	4488	DISCHARGING	27-10-25 12:29:51	27-10-25 12:31:46	1.91	100.0	100.0	99.6	0.0	0.08	nan
28	4489	DISCHARGING	27-10-25 13:15:22	27-10-25 14:13:16	57.91	100.0	98.8	99.6	5.06	0.05	1.06
28	4490	DISCHARGING	27-10-25 16:15:23	27-10-25 20:41:52	266.49	98.8	74.8	99.6	101.11	98.94	97.85
28	4491	DISCHARGING	27-10-25 21:44:08	27-10-25 22:08:59	24.85	61.6	57.2	99.6	18.54	16.18	87.28
28	4492	CHARGING	27-10-25 22:09:00	27-10-25 22:11:15	2.25	57.2	58.4	99.6	5.06	5.18	97.58
28	4493	DISCHARGING	27-10-25 22:53:27	27-10-25 23:12:55	19.46	84.8	80.4	99.6	18.54	19.69	93.8
28	4494	DISCHARGING	27-10-25 23:27:49	28-10-25 02:40:47	192.97	77.2	47.2	99.6	126.39	132.17	95.43
28	4495	CHARGING	28-10-25 02:53:57	28-10-25 04:09:21	75.4	54.8	100.0	99.6	190.43	171.49	90.05
28	4497	DISCHARGING	28-10-25 07:22:51	28-10-25 07:55:54	33.05	100.0	99.2	99.6	3.37	2.28	67.7
28	4498	DISCHARGING	28-10-25 08:02:32	28-10-25 09:08:00	65.47	99.2	98.8	99.6	1.68	1.48	88.08
28	4499	DISCHARGING	28-10-25 09:25:50	28-10-25 10:18:04	52.23	96.8	94.0	99.6	11.8	10.47	88.75
28	4500	DISCHARGING	28-10-25 10:32:36	28-10-25 10:39:47	7.19	93.6	93.2	99.6	1.68	0.1	5.67
28	4501	DISCHARGING	28-10-25 10:44:50	28-10-25 11:31:58	47.14	93.2	88.0	99.6	21.91	20.58	93.94
28	4502	DISCHARGING	28-10-25 11:55:19	28-10-25 12:16:21	21.02	86.8	86.0	99.6	3.37	4.55	65.07
28	4503	CHARGING	28-10-25 12:16:48	28-10-25 12:26:15	9.45	86.0	90.0	99.6	16.85	17.78	94.49
28	4504	DISCHARGING	28-10-25 12:44:17	28-10-25 17:02:14	257.96	90.0	59.6	99.6	128.08	130.35	98.23
28	4505	DISCHARGING	28-10-25 17:43:49	28-10-25 19:11:39	87.82	55.2	48.0	99.6	30.33	29.39	96.88
28	4506	CHARGING	28-10-25 19:27:16	28-10-25 20:43:28	76.21	48.0	100.0	99.6	219.08	232.09	94.06
28	4507	DISCHARGING	28-10-25 22:04:39	28-10-25 22:08:11	3.54	100.0	99.6	99.6	1.68	0.18	10.56

Vehicle 28 – Session SoC Accuracy (Page 12/13)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
28	4508	DISCHARGING	28-10-25 22:13:50	28-10-25 23:01:06	47.27	99.6	95.6	99.6	16.85	15.38	91.29
28	4509	DISCHARGING	28-10-25 23:19:17	29-10-25 00:37:02	77.74	94.0	88.4	99.6	23.59	24.71	95.25
28	4510	DISCHARGING	29-10-25 00:46:44	29-10-25 00:47:52	1.14	87.6	87.2	99.6	1.68	3.62	-14.5
28	4511	DISCHARGING	29-10-25 01:02:27	29-10-25 02:33:26	90.98	84.8	68.0	99.6	70.78	73.87	95.64
28	4512	DISCHARGING	29-10-25 02:39:48	29-10-25 03:28:57	49.15	66.8	57.6	99.6	38.76	40.22	96.23
28	4513	CHARGING	29-10-25 03:28:58	29-10-25 03:49:00	20.03	57.6	60.4	99.6	11.8	13.12	88.8
28	4515	CHARGING	29-10-25 03:49:02	29-10-25 04:01:02	12.0	60.4	69.6	99.6	38.76	40.33	95.95
28	4516	CHARGING	29-10-25 04:26:13	29-10-25 04:36:05	9.87	84.8	90.0	99.6	21.91	34.77	41.3
28	4517	DISCHARGING	29-10-25 04:36:06	29-10-25 08:35:26	239.33	90.0	48.0	99.6	176.95	181.31	97.54
28	4518	DISCHARGING	29-10-25 08:50:23	29-10-25 09:26:47	36.4	46.8	46.0	99.6	3.37	2.02	60.07
28	4519	DISCHARGING	29-10-25 09:38:38	29-10-25 09:55:53	17.25	46.0	45.6	99.6	1.68	4.15	-46.33
28	4520	DISCHARGING	29-10-25 10:28:18	29-10-25 10:29:58	1.67	45.6	45.6	99.6	0.0	0.02	nan
28	4521	DISCHARGING	29-10-25 10:45:20	29-10-25 10:54:27	9.12	45.6	45.2	99.6	1.68	0.3	17.67
28	4522	CHARGING	29-10-25 10:56:09	29-10-25 10:58:10	2.01	45.2	46.0	99.6	3.37	3.28	97.28
28	4523	CHARGING	29-10-25 11:04:30	29-10-25 11:14:10	9.67	48.8	52.8	99.6	16.85	18.74	88.78
28	4524	CHARGING	29-10-25 11:20:27	29-10-25 13:00:40	100.2	55.2	100.0	99.6	188.75	159.5	84.51
28	4525	CHARGING	29-10-25 13:22:57	29-10-25 13:23:03	0.1	100.0	100.0	99.6	0.0	5.26	nan
28	4526	DISCHARGING	29-10-25 13:23:04	29-10-25 13:32:59	9.91	100.0	99.6	99.6	1.68	0.27	15.9
28	4527	DISCHARGING	29-10-25 15:58:05	29-10-25 16:39:04	40.98	99.6	96.4	99.6	13.48	12.57	93.23
28	4528	DISCHARGING	29-10-25 16:52:00	29-10-25 18:40:37	108.61	95.6	91.6	99.6	16.85	14.08	83.58
28	4529	DISCHARGING	29-10-25 18:56:49	29-10-25 20:24:06	87.27	90.8	83.2	99.6	32.02	32.1	99.73
28	4530	CHARGING	29-10-25 20:24:07	29-10-25 20:38:29	14.37	83.2	90.0	99.6	28.65	49.11	28.58
28	4531	DISCHARGING	29-10-25 20:38:30	29-10-25 21:55:16	76.77	90.0	77.6	99.6	52.24	50.98	97.59
28	4532	DISCHARGING	29-10-25 22:01:32	29-10-25 22:04:58	3.44	76.4	76.0	99.6	1.68	2.83	31.82
28	4533	DISCHARGING	29-10-25 22:09:59	30-10-25 00:59:09	169.16	75.2	51.2	99.6	101.11	102.48	98.65
28	4534	DISCHARGING	30-10-25 01:20:18	30-10-25 01:23:26	3.14	49.2	49.2	99.6	0.0	1.73	nan
28	4535	DISCHARGING	30-10-25 01:44:51	30-10-25 02:33:35	48.74	46.4	44.0	99.6	10.11	7.4	73.21
28	4538	CHARGING	30-10-25 02:36:41	30-10-25 03:27:12	50.51	44.0	54.8	99.6	45.5	46.9	96.93
28	4542	CHARGING	30-10-25 03:43:43	30-10-25 04:36:31	52.8	54.8	86.4	99.6	133.13	144.21	91.68
28	4544	CHARGING	30-10-25 04:41:13	30-10-25 04:41:40	0.46	86.4	86.4	99.6	0.0	0.37	nan

Vehicle 28 — Session SoC Accuracy (Page 13/13)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
28	4545	CHARGING	30-10-25 04:54:50	30-10-25 04:54:51	0.02	86.4	86.4	99.6	0.0	4.15	nan
28	4546	DISCHARGING	30-10-25 04:54:52	30-10-25 04:59:35	4.7	86.4	86.4	99.6	0.0	0.0	nan
28	4547	CHARGING	30-10-25 04:59:56	30-10-25 05:09:37	9.69	86.4	100.0	99.6	57.3	18.36	32.04
28	4551	DISCHARGING	30-10-25 05:36:13	30-10-25 05:42:16	6.05	100.0	99.6	99.6	1.68	0.78	45.97
28	4552	DISCHARGING	30-10-25 06:24:22	30-10-25 06:24:41	0.31	99.6	99.6	99.6	0.0	3.9	nan
28	4553	DISCHARGING	30-10-25 08:19:23	30-10-25 08:31:49	12.43	99.6	99.6	99.6	0.0	5.45	nan
28	4554	DISCHARGING	30-10-25 09:30:15	30-10-25 11:34:41	124.44	99.6	90.4	99.6	38.76	31.82	82.11
28	4555	DISCHARGING	30-10-25 11:44:22	30-10-25 17:28:36	344.23	89.6	49.6	99.6	168.52	172.07	97.9
28	4556	CHARGING	30-10-25 17:28:38	30-10-25 17:37:48	9.16	49.6	56.4	99.6	28.65	30.92	92.06
28	4557	CHARGING	30-10-25 17:48:04	30-10-25 18:17:04	29.0	65.6	84.8	99.6	80.89	109.07	65.17
28	4558	DISCHARGING	30-10-25 18:17:05	30-10-25 21:48:32	211.45	84.8	48.4	99.6	153.36	156.94	97.67
28	4559	DISCHARGING	30-10-25 22:01:44	30-10-25 22:17:07	15.38	47.6	47.2	99.6	1.68	0.52	31.13
28	4562	CHARGING	30-10-25 22:20:46	30-10-25 22:32:17	11.52	47.2	53.2	99.6	25.28	27.88	89.73
28	4563	CHARGING	30-10-25 23:05:15	30-10-25 23:26:07	20.87	74.8	81.6	99.6	28.65	49.62	26.79
28	4566	DISCHARGING	30-10-25 23:34:47	30-10-25 23:50:23	15.6	81.6	79.2	99.6	10.11	11.24	88.85
28	4567	DISCHARGING	31-10-25 00:29:41	31-10-25 00:37:16	7.59	77.6	76.0	99.6	6.74	6.83	98.67
28	4568	DISCHARGING	31-10-25 00:58:45	31-10-25 01:00:55	2.18	73.2	73.2	99.6	0.0	1.98	nan
28	4569	DISCHARGING	31-10-25 01:07:34	31-10-25 02:01:03	53.48	72.4	67.6	99.6	20.22	22.42	89.13
28	4570	CHARGING	31-10-25 02:01:03	31-10-25 02:04:24	3.34	67.6	68.8	99.6	5.06	5.08	99.58
28	4571	CHARGING	31-10-25 02:20:16	31-10-25 02:41:22	21.1	68.8	86.4	99.6	74.15	77.27	95.79
28	4572	DISCHARGING	31-10-25 02:41:23	31-10-25 09:09:42	388.32	86.4	35.2	99.6	215.71	211.17	97.9
28	4574	CHARGING	31-10-25 09:26:53	31-10-25 09:39:40	12.78	35.2	38.4	99.6	13.48	13.9	96.86
28	4578	CHARGING	31-10-25 10:37:07	31-10-25 11:29:52	52.75	38.4	52.0	99.6	57.3	61.13	93.31
28	4580	CHARGING	31-10-25 11:31:54	31-10-25 12:02:09	30.25	52.0	56.4	99.6	18.54	19.8	93.19
28	4582	CHARGING	31-10-25 12:02:11	31-10-25 12:10:23	8.2	56.4	58.0	99.6	6.74	7.9	82.82
28	4583	CHARGING	31-10-25 12:34:51	31-10-25 16:15:01	220.18	63.2	87.6	99.6	102.8	122.35	80.98

Vehicle 29 – Session SoC Accuracy (Page 1/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
29	4586	DISCHARGING	02-10-25 06:17:33	02-10-25 07:13:21	55.8	90.4	89.6	100.0	3.38	1.21	35.86
29	4589	DISCHARGING	02-10-25 08:23:41	02-10-25 11:30:24	186.72	89.2	88.0	100.0	5.08	0.1	1.91
29	4590	CHARGING	02-10-25 11:30:25	02-10-25 11:34:46	4.34	88.0	88.0	nan	nan	0.38	nan
29	4596	CHARGING	02-10-25 11:56:15	02-10-25 12:24:41	28.43	88.0	100.0	100.0	50.76	38.21	75.28
29	4597	DISCHARGING	02-10-25 12:24:42	02-10-25 15:27:12	182.51	100.0	92.8	100.0	30.46	17.42	57.19
29	4599	DISCHARGING	02-10-25 15:50:15	02-10-25 16:11:57	21.69	92.8	92.4	100.0	1.69	6.63	-191.78
29	4600	DISCHARGING	02-10-25 16:28:20	02-10-25 16:35:41	7.36	92.4	92.4	100.0	0.0	0.0	nan
29	4601	DISCHARGING	02-10-25 17:16:23	02-10-25 17:30:56	14.55	92.4	92.4	100.0	0.0	0.01	nan
29	4603	DISCHARGING	02-10-25 21:05:58	02-10-25 21:23:24	17.43	92.4	92.4	100.0	0.0	0.28	nan
29	4607	DISCHARGING	03-10-25 01:36:54	03-10-25 01:57:49	20.92	90.8	90.8	100.0	0.0	0.21	nan
29	4608	DISCHARGING	03-10-25 02:35:38	03-10-25 02:36:50	1.2	90.8	90.8	100.0	0.0	0.01	nan
29	4609	DISCHARGING	03-10-25 03:03:02	03-10-25 03:17:13	14.18	90.8	90.4	100.0	1.69	1.76	96.23
29	4610	DISCHARGING	03-10-25 03:26:06	03-10-25 04:09:38	43.53	90.4	90.4	100.0	0.0	2.28	nan
29	4614	DISCHARGING	04-10-25 08:41:01	04-10-25 08:50:11	9.17	90.4	90.0	100.0	1.69	0.02	1.42
29	4615	DISCHARGING	04-10-25 11:50:57	04-10-25 12:10:47	19.84	90.0	90.0	100.0	0.0	0.17	nan
29	4617	DISCHARGING	07-10-25 09:13:27	07-10-25 09:37:19	23.87	90.0	89.2	100.0	3.38	2.1	62.05
29	4618	DISCHARGING	07-10-25 10:01:55	07-10-25 11:02:02	60.13	89.2	87.2	100.0	8.46	1.1	12.96
29	4619	DISCHARGING	07-10-25 11:08:51	07-10-25 11:52:42	43.86	87.2	82.8	100.0	18.61	8.79	47.21
29	4620	DISCHARGING	07-10-25 12:02:39	07-10-25 12:32:33	29.91	80.4	74.4	100.0	25.38	26.94	93.85
29	4621	DISCHARGING	07-10-25 12:40:49	07-10-25 13:47:47	66.96	72.4	67.2	100.0	22.0	20.77	94.45
29	4623	CHARGING	07-10-25 14:00:04	07-10-25 14:02:26	2.37	67.2	67.2	100.0	0.0	0.74	nan
29	4626	DISCHARGING	07-10-25 14:05:53	07-10-25 14:07:05	1.2	67.2	67.2	100.0	0.0	2.1	nan
29	4627	CHARGING	07-10-25 14:07:06	07-10-25 14:55:28	48.36	67.2	84.4	100.0	72.76	86.66	80.88
29	4628	CHARGING	07-10-25 15:15:18	07-10-25 15:36:10	20.87	90.0	100.0	100.0	42.3	12.78	30.21
29	4630	DISCHARGING	09-10-25 00:53:51	09-10-25 02:57:15	123.4	99.2	82.8	100.0	69.37	64.49	92.97
29	4631	DISCHARGING	09-10-25 03:03:53	09-10-25 04:14:31	70.64	82.0	69.2	100.0	54.14	55.74	97.04
29	4632	DISCHARGING	09-10-25 04:21:09	09-10-25 06:19:53	118.73	67.2	49.6	100.0	74.45	75.24	98.93
29	4633	DISCHARGING	09-10-25 08:24:13	09-10-25 08:24:35	0.36	49.6	49.6	100.0	0.0	0.0	nan
29	4634	DISCHARGING	09-10-25 08:34:11	09-10-25 09:11:06	36.91	49.6	48.8	100.0	3.38	2.02	59.77
29	4635	DISCHARGING	10-10-25 06:09:41	10-10-25 07:27:32	77.85	48.8	46.8	100.0	8.46	3.16	37.37

Vehicle 29 – Session SoC Accuracy (Page 2/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
29	4638	DISCHARGING	13-10-25 10:26:38	13-10-25 11:27:09	60.51	45.6	45.6	100.0	0.0	0.06	nan
29	4639	DISCHARGING	13-10-25 11:46:47	13-10-25 12:12:16	25.48	45.6	45.2	100.0	1.69	1.18	69.58
29	4640	DISCHARGING	13-10-25 12:31:48	13-10-25 12:50:54	19.1	44.0	40.4	100.0	15.23	17.59	84.49
29	4641	DISCHARGING	13-10-25 13:40:30	13-10-25 13:44:27	3.95	30.8	30.4	100.0	1.69	2.16	72.02
29	4642	DISCHARGING	14-10-25 04:35:43	14-10-25 04:53:45	18.05	30.4	28.8	100.0	6.77	0.49	7.24
29	4643	DISCHARGING	14-10-25 05:03:42	14-10-25 06:00:17	56.58	28.8	28.4	100.0	1.69	0.17	10.22
29	4644	CHARGING	14-10-25 06:00:18	14-10-25 06:03:12	2.9	28.4	28.4	100.0	0.0	0.43	nan
29	4648	CHARGING	14-10-25 06:03:38	14-10-25 06:06:18	2.68	28.4	28.4	100.0	0.0	0.64	nan
29	4650	CHARGING	14-10-25 06:06:21	14-10-25 06:06:55	0.58	28.4	28.4	100.0	0.0	1.84	nan
29	4656	CHARGING	14-10-25 06:11:43	14-10-25 09:03:45	172.03	28.4	100.0	100.0	302.87	315.02	95.99
29	4657	DISCHARGING	14-10-25 09:03:46	14-10-25 13:40:33	276.8	100.0	96.8	100.0	13.54	8.66	63.99
29	4658	DISCHARGING	14-10-25 13:46:53	14-10-25 15:10:56	84.04	96.8	95.6	100.0	5.08	2.67	52.65
29	4659	DISCHARGING	14-10-25 15:25:48	14-10-25 15:49:41	23.87	95.6	95.2	100.0	1.69	0.03	1.7
29	4660	DISCHARGING	14-10-25 16:39:55	14-10-25 17:27:49	47.91	95.2	90.8	100.0	18.61	18.34	98.54
29	4661	DISCHARGING	14-10-25 17:42:25	14-10-25 17:54:08	11.72	88.8	87.6	100.0	5.08	4.86	95.73
29	4662	DISCHARGING	14-10-25 18:12:18	14-10-25 19:43:51	91.56	86.4	73.6	100.0	54.14	52.04	96.12
29	4663	DISCHARGING	14-10-25 19:52:08	14-10-25 22:41:14	169.09	72.0	51.6	100.0	86.29	86.57	99.67
29	4664	DISCHARGING	14-10-25 22:56:01	15-10-25 01:01:45	125.74	51.6	51.2	100.0	1.69	0.43	25.58
29	4665	DISCHARGING	15-10-25 01:24:37	15-10-25 01:26:33	1.93	50.8	50.8	100.0	0.0	0.31	nan
29	4666	DISCHARGING	15-10-25 01:37:32	15-10-25 01:56:56	19.39	50.8	50.4	100.0	1.69	0.21	12.22
29	4667	DISCHARGING	15-10-25 02:21:27	15-10-25 03:19:07	57.68	50.0	49.6	100.0	1.69	0.37	21.63
29	4668	DISCHARGING	15-10-25 03:43:54	15-10-25 04:00:32	16.63	49.2	48.8	100.0	1.69	0.47	27.96
29	4669	CHARGING	15-10-25 04:01:08	15-10-25 04:41:06	39.97	48.8	69.6	100.0	87.98	93.23	94.04
29	4670	CHARGING	15-10-25 04:51:01	15-10-25 05:42:42	51.69	74.8	100.0	100.0	106.6	109.56	97.22
29	4672	DISCHARGING	15-10-25 06:12:56	15-10-25 06:18:38	5.71	100.0	99.6	100.0	1.69	0.11	6.45
29	4673	DISCHARGING	15-10-25 14:24:24	15-10-25 14:49:46	25.37	99.6	99.2	100.0	1.69	2.23	68.03
29	4674	DISCHARGING	15-10-25 15:02:41	15-10-25 15:23:21	20.66	98.0	94.8	100.0	13.54	12.09	89.29
29	4675	DISCHARGING	15-10-25 15:36:35	15-10-25 15:42:48	6.21	92.8	92.0	100.0	3.38	5.43	39.48
29	4676	DISCHARGING	15-10-25 16:04:33	15-10-25 17:38:47	94.23	90.4	83.6	100.0	28.76	29.29	98.18
29	4677	DISCHARGING	15-10-25 17:51:44	15-10-25 18:42:16	50.53	82.0	77.6	100.0	18.61	19.48	95.33

Vehicle 29 – Session SoC Accuracy (Page 3/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
29	4678	DISCHARGING	15-10-25 19:16:57	15-10-25 20:25:56	68.98	74.4	72.4	100.0	8.46	9.43	88.51
29	4683	CHARGING	15-10-25 20:27:11	15-10-25 20:35:27	8.27	72.4	77.2	100.0	20.3	21.58	93.7
29	4687	DISCHARGING	16-10-25 02:33:46	16-10-25 02:38:30	4.74	77.2	76.8	100.0	1.69	0.34	20.37
29	4688	DISCHARGING	16-10-25 05:25:47	16-10-25 06:30:06	64.33	76.8	73.6	100.0	13.54	13.39	98.91
29	4690	DISCHARGING	16-10-25 09:35:37	16-10-25 09:46:04	10.45	73.2	72.8	100.0	1.69	1.38	81.56
29	4691	DISCHARGING	16-10-25 09:52:42	16-10-25 10:49:01	56.32	72.8	70.0	100.0	11.84	8.97	75.76
29	4692	DISCHARGING	16-10-25 11:17:13	16-10-25 11:20:16	3.06	70.0	70.0	100.0	0.0	0.15	nan
29	4693	DISCHARGING	16-10-25 11:36:18	16-10-25 11:41:14	4.93	70.0	70.0	100.0	0.0	0.01	nan
29	4694	DISCHARGING	16-10-25 12:30:41	16-10-25 14:24:41	114.0	70.0	69.2	100.0	3.38	1.03	30.53
29	4695	DISCHARGING	17-10-25 09:35:32	17-10-25 10:44:12	68.66	69.2	66.8	100.0	10.15	4.63	45.62
29	4696	DISCHARGING	17-10-25 10:51:07	17-10-25 10:58:16	7.15	66.8	66.8	100.0	0.0	0.08	nan
29	4697	DISCHARGING	17-10-25 11:34:14	17-10-25 13:34:39	120.42	66.8	65.6	100.0	5.08	2.23	43.99
29	4698	DISCHARGING	17-10-25 13:41:16	17-10-25 15:07:37	86.35	65.6	64.0	100.0	6.77	2.38	35.14
29	4701	DISCHARGING	17-10-25 16:00:23	17-10-25 16:44:20	43.94	64.0	63.6	100.0	1.69	0.8	47.12
29	4704	CHARGING	17-10-25 20:07:02	18-10-25 00:56:00	288.96	63.6	100.0	100.0	153.97	133.75	86.87
29	4708	DISCHARGING	18-10-25 13:08:39	18-10-25 15:55:26	166.78	100.0	95.2	100.0	20.3	11.66	57.45
29	4709	DISCHARGING	18-10-25 16:20:16	18-10-25 17:31:12	70.93	94.0	91.2	100.0	11.84	10.95	92.43
29	4710	DISCHARGING	18-10-25 17:36:14	18-10-25 17:50:06	13.86	90.8	90.0	100.0	3.38	3.91	84.37
29	4711	DISCHARGING	18-10-25 17:58:23	18-10-25 21:11:30	193.11	89.2	57.6	100.0	133.67	135.32	98.76
29	4712	CHARGING	18-10-25 21:15:25	18-10-25 21:19:52	4.45	57.6	59.2	100.0	6.77	6.33	93.56
29	4714	CHARGING	18-10-25 21:21:35	18-10-25 21:46:33	24.97	59.2	80.0	100.0	87.98	94.51	92.58
29	4715	CHARGING	18-10-25 21:55:25	18-10-25 22:07:58	12.56	83.2	91.6	100.0	35.53	50.04	59.16
29	4716	DISCHARGING	18-10-25 22:07:59	19-10-25 00:05:33	117.56	91.6	64.8	100.0	113.36	116.66	97.09
29	4717	DISCHARGING	19-10-25 00:13:53	19-10-25 00:33:10	19.28	62.0	58.0	100.0	16.92	16.82	99.44
29	4718	DISCHARGING	19-10-25 00:56:18	19-10-25 02:43:55	107.61	54.8	50.8	100.0	16.92	13.93	82.31
29	4719	DISCHARGING	19-10-25 04:15:15	19-10-25 04:20:35	5.33	50.8	50.8	100.0	0.0	0.22	nan
29	4720	DISCHARGING	19-10-25 04:43:27	19-10-25 05:43:38	60.18	50.4	50.0	100.0	1.69	0.05	3.17
29	4725	CHARGING	19-10-25 05:53:59	19-10-25 06:30:48	36.81	50.0	74.0	100.0	101.52	98.78	97.3
29	4728	DISCHARGING	19-10-25 10:05:14	19-10-25 10:29:56	24.69	100.0	98.8	100.0	5.08	4.68	92.15
29	4729	DISCHARGING	19-10-25 10:39:52	19-10-25 11:02:34	22.7	98.4	97.6	100.0	3.38	2.4	70.83

Vehicle 29 – Session SoC Accuracy (Page 4/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
29	4730	DISCHARGING	19-10-25 11:27:02	19-10-25 12:16:46	49.73	97.2	96.0	100.0	5.08	1.41	27.8
29	4731	DISCHARGING	19-10-25 12:24:44	19-10-25 13:27:42	62.96	96.0	92.8	100.0	13.54	14.16	95.36
29	4732	DISCHARGING	19-10-25 13:41:04	19-10-25 14:42:33	61.49	91.6	88.8	100.0	11.84	9.28	78.31
29	4733	DISCHARGING	19-10-25 14:49:11	19-10-25 17:12:03	142.87	88.8	80.0	100.0	37.22	28.4	76.3
29	4734	DISCHARGING	19-10-25 17:28:35	19-10-25 18:15:44	47.15	76.8	71.6	100.0	22.0	23.62	92.6
29	4735	DISCHARGING	19-10-25 18:28:56	19-10-25 19:03:22	34.42	71.6	67.2	100.0	18.61	18.37	98.72
29	4736	DISCHARGING	19-10-25 19:21:34	19-10-25 20:17:14	55.67	63.2	55.2	100.0	33.84	34.37	98.44
29	4737	CHARGING	19-10-25 20:17:15	19-10-25 20:21:01	3.78	55.2	57.6	100.0	10.15	10.97	91.93
29	4738	CHARGING	19-10-25 20:31:08	19-10-25 20:51:17	20.15	65.6	79.6	100.0	59.22	66.74	87.3
29	4739	DISCHARGING	19-10-25 20:51:18	19-10-25 22:37:27	106.14	79.6	62.0	100.0	74.45	76.2	97.65
29	4740	DISCHARGING	19-10-25 22:47:05	20-10-25 00:38:27	111.37	60.4	44.8	100.0	65.99	67.86	97.16
29	4741	DISCHARGING	20-10-25 02:13:15	20-10-25 03:06:32	53.29	44.8	43.6	100.0	5.08	1.56	30.79
29	4742	CHARGING	20-10-25 03:11:10	20-10-25 03:19:51	8.69	43.6	50.0	100.0	27.07	29.02	92.8
29	4743	CHARGING	20-10-25 04:41:16	20-10-25 05:08:41	27.42	50.0	70.8	100.0	87.98	94.74	92.32
29	4749	DISCHARGING	20-10-25 07:57:52	20-10-25 08:29:57	32.08	70.8	70.0	100.0	3.38	3.99	81.98
29	4750	DISCHARGING	20-10-25 08:51:09	20-10-25 09:39:40	48.52	69.6	69.6	100.0	0.0	0.2	nan
29	4751	CHARGING	20-10-25 09:52:47	20-10-25 11:14:27	81.67	69.6	100.0	100.0	128.59	132.89	96.66
29	4753	DISCHARGING	20-10-25 11:22:43	20-10-25 12:26:49	64.1	100.0	98.0	100.0	8.46	2.47	29.18
29	4754	DISCHARGING	20-10-25 12:33:31	20-10-25 12:54:35	21.07	98.0	97.6	100.0	1.69	0.87	51.57
29	4755	DISCHARGING	20-10-25 12:59:37	20-10-25 14:00:27	60.84	97.2	96.0	100.0	5.08	1.64	32.41
29	4756	CHARGING	20-10-25 14:00:29	20-10-25 14:10:09	9.66	96.0	100.0	100.0	16.92	14.37	84.91
29	4757	DISCHARGING	20-10-25 14:10:12	20-10-25 19:53:54	343.7	100.0	61.2	100.0	164.12	164.08	99.97
29	4758	CHARGING	20-10-25 19:53:55	20-10-25 20:01:25	7.49	61.2	64.0	100.0	11.84	12.28	96.27
29	4759	DISCHARGING	20-10-25 20:01:26	20-10-25 20:06:12	4.76	64.0	64.0	100.0	0.0	2.08	nan
29	4760	CHARGING	20-10-25 20:06:13	20-10-25 20:40:43	34.51	64.0	84.8	100.0	87.98	117.9	66.0
29	4761	DISCHARGING	20-10-25 20:40:44	20-10-25 21:18:56	38.19	84.8	76.8	99.92	33.81	36.39	92.38
29	4762	DISCHARGING	20-10-25 21:23:58	20-10-25 21:31:17	7.31	75.2	73.2	99.6	8.43	9.5	87.24
29	4763	DISCHARGING	20-10-25 21:44:17	20-10-25 23:02:19	78.04	70.4	49.6	99.6	87.63	87.94	99.65
29	4764	DISCHARGING	20-10-25 23:12:16	21-10-25 00:38:52	86.59	47.6	38.8	99.6	37.08	28.18	76.0
29	4766	DISCHARGING	21-10-25 04:36:42	21-10-25 04:45:54	9.21	38.8	38.4	99.6	1.68	1.03	61.13

Vehicle 29 – Session SoC Accuracy (Page 5/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
29	4767	CHARGING	21-10-25 04:45:56	21-10-25 06:20:48	94.87	38.4	100.0	99.6	259.53	247.8	95.48
29	4769	CHARGING	21-10-25 06:38:46	21-10-25 06:47:52	9.1	100.0	100.0	99.6	0.0	13.1	nan
29	4770	DISCHARGING	21-10-25 06:47:53	21-10-25 06:56:13	8.34	100.0	99.6	99.6	1.68	1.44	85.26
29	4771	DISCHARGING	21-10-25 07:06:54	21-10-25 07:32:08	25.24	99.6	98.8	99.6	3.37	1.4	41.49
29	4773	DISCHARGING	21-10-25 09:30:21	21-10-25 09:31:21	1.0	98.8	98.8	99.6	0.0	0.98	nan
29	4774	DISCHARGING	21-10-25 12:03:22	21-10-25 12:35:22	32.01	98.8	98.4	99.6	1.68	4.1	-43.2
29	4775	DISCHARGING	21-10-25 14:23:47	21-10-25 15:51:40	87.89	98.4	93.6	99.6	20.22	19.16	94.75
29	4776	DISCHARGING	21-10-25 15:56:41	21-10-25 18:51:06	174.42	93.2	84.0	99.6	38.76	33.51	86.46
29	4777	DISCHARGING	21-10-25 19:15:55	21-10-25 19:57:52	41.95	82.0	78.4	99.6	15.17	16.27	92.73
29	4778	CHARGING	21-10-25 19:59:33	21-10-25 20:00:54	1.34	78.4	78.4	99.6	0.0	0.45	nan
29	4780	CHARGING	21-10-25 20:01:55	21-10-25 20:30:11	28.27	78.4	100.0	99.6	91.0	92.57	98.27
29	4781	DISCHARGING	21-10-25 20:31:58	22-10-25 02:35:49	363.86	100.0	48.0	99.6	219.08	222.5	98.44
29	4782	DISCHARGING	22-10-25 02:47:25	22-10-25 03:23:49	36.39	47.2	44.8	99.6	10.11	11.16	89.66
29	4783	DISCHARGING	22-10-25 04:05:08	22-10-25 04:14:43	9.59	44.8	44.8	99.6	0.0	0.32	nan
29	4784	CHARGING	22-10-25 04:14:44	22-10-25 06:10:12	115.47	44.8	90.8	99.6	193.8	235.06	78.71
29	4786	CHARGING	22-10-25 06:25:38	22-10-25 06:33:44	8.11	90.8	100.0	99.6	38.76	11.44	29.52
29	4789	DISCHARGING	22-10-25 08:46:03	22-10-25 08:52:41	6.64	100.0	99.6	99.6	1.68	1.08	64.36
29	4790	DISCHARGING	22-10-25 09:05:58	22-10-25 11:39:43	153.76	98.8	97.2	99.6	6.74	4.88	72.32
29	4792	DISCHARGING	22-10-25 12:41:34	22-10-25 19:23:39	402.09	97.2	55.2	99.6	176.95	178.92	98.89
29	4793	CHARGING	22-10-25 19:23:40	22-10-25 20:19:52	56.2	55.2	90.4	99.6	148.3	192.56	70.16
29	4794	DISCHARGING	22-10-25 20:20:19	22-10-25 23:59:34	219.25	90.4	46.4	99.6	185.38	190.72	97.12
29	4795	DISCHARGING	23-10-25 00:24:04	23-10-25 01:25:44	61.65	44.4	43.6	99.6	3.37	3.25	96.3
29	4796	CHARGING	23-10-25 01:25:45	23-10-25 03:38:17	132.54	43.6	100.0	99.6	237.62	220.53	92.81
29	4797	DISCHARGING	23-10-25 03:38:18	23-10-25 04:15:28	37.17	100.0	99.6	99.6	1.68	1.12	66.57
29	4798	DISCHARGING	23-10-25 13:30:28	23-10-25 14:28:17	57.82	99.6	98.8	99.6	3.37	1.32	39.06
29	4799	DISCHARGING	23-10-25 14:50:31	23-10-25 18:05:54	195.38	98.8	89.2	99.6	40.45	28.06	69.39
29	4800	DISCHARGING	23-10-25 18:10:55	23-10-25 19:25:25	74.5	89.2	82.8	99.6	26.96	24.94	92.51
29	4801	DISCHARGING	23-10-25 19:33:46	23-10-25 20:02:26	28.67	82.8	81.2	99.6	6.74	8.49	74.04
29	4802	CHARGING	23-10-25 20:02:27	23-10-25 20:27:21	24.9	81.2	90.8	99.6	40.45	64.72	39.98
29	4803	DISCHARGING	23-10-25 20:27:22	23-10-25 22:11:59	104.61	90.8	75.2	99.6	65.72	67.88	96.72

Vehicle 29 – Session SoC Accuracy (Page 6/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
29	4804	DISCHARGING	23-10-25 22:18:25	23-10-25 23:18:59	60.56	74.4	64.8	99.6	40.45	43.75	91.82
29	4805	DISCHARGING	23-10-25 23:25:22	24-10-25 00:48:21	82.98	63.6	54.0	99.6	40.45	42.35	95.29
29	4806	DISCHARGING	24-10-25 00:56:45	24-10-25 02:46:26	109.68	53.2	46.8	99.6	26.96	26.88	99.71
29	4807	CHARGING	24-10-25 02:53:25	24-10-25 04:32:01	98.59	46.8	100.0	99.6	224.14	217.83	97.19
29	4811	DISCHARGING	24-10-25 05:35:26	24-10-25 05:48:14	12.8	100.0	100.0	99.6	0.0	0.03	nan
29	4814	DISCHARGING	24-10-25 09:04:20	24-10-25 09:08:13	3.88	100.0	99.6	99.6	1.68	0.07	4.18
29	4815	DISCHARGING	24-10-25 10:14:08	24-10-25 11:10:48	56.67	99.6	98.4	99.6	5.06	2.96	58.55
29	4816	DISCHARGING	24-10-25 11:28:46	24-10-25 13:01:29	92.72	98.4	97.2	99.6	5.06	1.04	20.6
29	4817	DISCHARGING	24-10-25 13:07:51	24-10-25 14:42:20	94.49	97.2	96.0	99.6	5.06	2.04	40.3
29	4818	DISCHARGING	24-10-25 14:52:19	24-10-25 16:42:49	110.5	95.2	87.2	99.6	33.7	31.93	94.73
29	4819	DISCHARGING	24-10-25 16:51:09	24-10-25 17:24:49	33.66	86.8	83.6	99.6	13.48	12.73	94.39
29	4820	DISCHARGING	24-10-25 17:41:23	24-10-25 20:29:41	168.31	80.8	51.2	99.6	124.71	127.74	97.56
29	4821	CHARGING	24-10-25 20:29:43	24-10-25 20:31:39	1.94	51.2	52.0	99.6	3.37	4.63	62.69
29	4822	DISCHARGING	24-10-25 21:25:06	24-10-25 21:49:24	24.29	89.2	82.8	99.6	26.96	28.24	95.28
29	4823	DISCHARGING	24-10-25 21:56:04	24-10-25 23:55:09	119.08	81.6	51.6	99.6	126.39	129.38	97.64
29	4824	DISCHARGING	25-10-25 00:01:33	25-10-25 01:28:35	87.02	50.4	42.4	99.6	33.7	31.86	94.53
29	4826	DISCHARGING	25-10-25 02:02:17	25-10-25 02:30:26	28.15	42.4	42.4	99.6	0.0	0.08	nan
29	4828	CHARGING	25-10-25 02:52:56	25-10-25 03:28:45	35.8	41.6	63.6	99.6	92.69	92.45	99.75
29	4829	CHARGING	25-10-25 03:35:06	25-10-25 04:07:03	31.95	67.6	84.4	99.6	70.78	92.59	69.19
29	4830	DISCHARGING	25-10-25 04:07:05	25-10-25 04:09:29	2.4	84.4	84.4	99.6	0.0	0.0	nan
29	4831	CHARGING	25-10-25 04:09:59	25-10-25 05:10:29	60.5	84.4	100.0	99.6	65.72	21.67	32.97
29	4832	DISCHARGING	25-10-25 05:10:30	25-10-25 06:34:39	84.15	100.0	99.6	99.6	1.68	0.32	18.77
29	4834	DISCHARGING	25-10-25 11:49:11	25-10-25 12:15:50	26.64	99.2	98.4	99.6	3.37	1.8	53.26
29	4835	DISCHARGING	25-10-25 13:29:05	25-10-25 14:37:20	68.26	98.4	94.4	99.6	16.85	10.27	60.94
29	4836	DISCHARGING	25-10-25 14:47:01	25-10-25 17:48:36	181.58	93.6	82.8	99.6	45.5	39.85	87.59
29	4837	DISCHARGING	25-10-25 17:55:18	25-10-25 19:11:04	75.78	82.4	73.2	99.6	38.76	43.1	88.8
29	4838	CHARGING	25-10-25 19:12:16	25-10-25 19:19:53	7.61	73.2	76.8	99.6	15.17	15.66	96.73
29	4840	CHARGING	25-10-25 19:21:46	25-10-25 19:52:21	30.57	76.8	100.0	99.6	97.74	103.34	94.28
29	4841	DISCHARGING	25-10-25 19:52:22	25-10-25 20:21:30	29.15	100.0	93.6	99.6	26.96	26.93	99.86
29	4842	DISCHARGING	25-10-25 20:27:54	25-10-25 23:08:20	160.44	92.4	64.4	99.6	117.97	120.62	97.75

Vehicle 29 – Session SoC Accuracy (Page 7/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
29	4843	DISCHARGING	25-10-25 23:26:17	26-10-25 00:04:15	37.95	61.6	54.4	99.6	30.33	25.53	84.17
29	4844	DISCHARGING	26-10-25 00:15:52	26-10-25 01:00:48	44.93	52.8	47.2	99.6	23.59	23.64	99.79
29	4845	DISCHARGING	26-10-25 01:20:43	26-10-25 02:01:14	40.52	44.4	41.2	99.6	13.48	12.76	94.67
29	4846	CHARGING	26-10-25 02:27:34	26-10-25 02:31:52	4.29	41.2	44.0	99.6	11.8	13.3	87.21
29	4847	CHARGING	26-10-25 02:59:58	26-10-25 04:04:20	64.36	69.2	100.0	99.6	129.76	136.88	94.52
29	4852	DISCHARGING	26-10-25 07:09:45	26-10-25 07:10:48	1.04	100.0	100.0	99.6	0.0	0.02	nan
29	4853	DISCHARGING	26-10-25 08:17:41	26-10-25 08:24:49	7.14	100.0	100.0	99.6	0.0	11.15	nan
29	4854	DISCHARGING	26-10-25 12:19:02	26-10-25 12:42:11	23.14	100.0	98.8	99.6	5.06	4.33	85.73
29	4855	DISCHARGING	26-10-25 12:48:51	26-10-25 12:59:04	10.2	98.4	98.4	99.6	0.0	1.16	nan
29	4856	DISCHARGING	26-10-25 13:10:23	26-10-25 14:14:28	64.09	98.0	96.0	99.6	8.43	1.36	16.17
29	4857	DISCHARGING	26-10-25 14:25:34	26-10-25 16:23:07	117.56	96.0	88.8	99.6	30.33	30.02	98.96
29	4858	DISCHARGING	26-10-25 16:29:46	26-10-25 19:59:39	209.89	88.0	52.0	99.6	151.67	153.79	98.6
29	4859	CHARGING	26-10-25 19:59:40	26-10-25 20:27:15	27.58	52.0	76.0	99.6	101.11	106.86	94.32
29	4860	DISCHARGING	26-10-25 20:57:40	26-10-25 21:15:34	17.9	90.8	86.0	99.6	20.22	21.37	94.33
29	4861	DISCHARGING	26-10-25 21:20:39	27-10-25 00:37:13	196.56	84.8	47.2	99.6	158.41	149.38	94.3
29	4862	DISCHARGING	27-10-25 00:42:14	27-10-25 00:43:22	1.14	46.8	46.4	99.6	1.68	1.27	75.1
29	4863	DISCHARGING	27-10-25 00:48:23	27-10-25 01:11:45	23.37	46.0	44.0	99.6	8.43	8.02	95.17
29	4864	DISCHARGING	27-10-25 01:29:59	27-10-25 01:33:59	4.0	44.0	43.6	99.6	1.68	0.18	10.49
29	4866	DISCHARGING	27-10-25 02:00:50	27-10-25 02:20:04	19.23	43.6	43.2	99.6	1.68	0.22	13.31
29	4867	CHARGING	27-10-25 02:33:33	27-10-25 02:54:49	21.27	43.2	55.6	99.6	52.24	56.37	92.09
29	4873	CHARGING	27-10-25 02:57:22	27-10-25 02:58:13	0.86	55.6	55.6	99.6	0.0	0.2	nan
29	4875	CHARGING	27-10-25 02:58:43	27-10-25 04:07:45	69.03	55.6	100.0	99.6	187.06	161.97	86.59
29	4878	DISCHARGING	27-10-25 04:49:28	27-10-25 05:05:49	16.35	100.0	99.2	99.6	3.37	1.93	57.34
29	4879	DISCHARGING	27-10-25 07:11:55	27-10-25 07:14:42	2.78	99.2	99.2	99.6	0.0	0.71	nan
29	4880	DISCHARGING	27-10-25 08:16:23	27-10-25 08:19:22	2.98	99.2	99.2	99.6	0.0	0.61	nan
29	4881	DISCHARGING	27-10-25 10:24:03	27-10-25 10:28:39	4.6	99.2	98.8	99.6	1.68	11.08	-457.39
29	4882	DISCHARGING	27-10-25 11:33:35	27-10-25 11:48:20	14.74	98.8	98.8	99.6	0.0	5.19	nan
29	4883	DISCHARGING	27-10-25 12:55:58	27-10-25 13:03:19	7.35	98.8	98.8	99.6	0.0	0.47	nan
29	4884	DISCHARGING	27-10-25 13:25:05	27-10-25 14:57:14	92.14	98.8	93.6	99.6	21.91	13.0	59.35
29	4885	DISCHARGING	27-10-25 15:17:05	27-10-25 16:11:58	54.88	92.8	90.8	99.6	8.43	6.92	82.09

Vehicle 29 – Session SoC Accuracy (Page 8/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
29	4886	DISCHARGING	27-10-25 16:18:38	27-10-25 19:30:02	191.4	90.8	77.6	99.6	55.61	51.4	92.43
29	4887	CHARGING	27-10-25 19:30:03	27-10-25 19:53:17	23.24	77.6	86.0	99.6	35.39	74.81	-11.38
29	4888	DISCHARGING	27-10-25 19:53:18	27-10-25 19:54:54	1.6	86.0	86.0	99.6	0.0	1.1	nan
29	4889	CHARGING	27-10-25 19:54:55	27-10-25 20:01:33	6.63	86.0	89.2	99.6	13.48	13.76	97.96
29	4890	DISCHARGING	27-10-25 20:08:11	27-10-25 21:14:46	66.6	90.8	78.8	99.6	50.56	52.13	96.89
29	4891	DISCHARGING	27-10-25 21:21:31	27-10-25 21:33:50	12.31	77.6	75.6	99.6	8.43	9.46	87.76
29	4892	DISCHARGING	27-10-25 21:40:30	27-10-25 21:45:38	5.14	74.8	73.6	99.6	5.06	7.12	59.22
29	4893	DISCHARGING	27-10-25 21:55:38	27-10-25 22:28:40	33.03	72.4	67.2	99.6	21.91	19.56	89.3
29	4894	DISCHARGING	27-10-25 22:41:58	28-10-25 02:43:21	241.38	65.2	35.6	99.6	124.71	117.65	94.34
29	4895	DISCHARGING	28-10-25 02:53:17	28-10-25 03:04:15	10.97	35.2	34.8	99.6	1.68	1.2	71.35
29	4896	CHARGING	28-10-25 03:37:41	28-10-25 05:46:53	129.2	34.8	100.0	99.6	274.69	250.48	91.19
29	4902	DISCHARGING	28-10-25 09:10:15	28-10-25 11:01:36	111.34	99.2	98.8	99.6	1.68	0.64	38.0
29	4906	DISCHARGING	28-10-25 12:03:34	28-10-25 19:09:58	426.41	98.8	50.4	99.6	203.91	207.37	98.31
29	4907	CHARGING	28-10-25 19:10:55	28-10-25 20:00:35	49.66	50.4	86.0	99.6	149.99	194.37	70.41
29	4908	DISCHARGING	28-10-25 20:00:38	28-10-25 21:03:00	62.37	86.0	70.8	99.6	64.04	66.64	95.93
29	4909	DISCHARGING	28-10-25 21:11:20	29-10-25 00:04:46	173.44	68.8	42.8	99.6	109.54	109.28	99.77
29	4910	CHARGING	29-10-25 00:06:11	29-10-25 00:22:39	16.46	42.8	52.4	99.6	40.45	42.82	94.12
29	4911	DISCHARGING	29-10-25 00:22:40	29-10-25 00:25:36	2.93	52.4	52.4	99.6	0.0	0.06	nan
29	4918	CHARGING	29-10-25 00:36:50	29-10-25 01:49:39	72.82	52.4	100.0	99.6	200.54	177.04	88.28
29	4919	DISCHARGING	29-10-25 02:01:48	29-10-25 04:14:15	132.45	100.0	91.6	99.6	35.39	31.92	90.18
29	4920	DISCHARGING	29-10-25 04:20:03	29-10-25 04:20:19	0.27	91.2	91.2	99.6	0.0	0.26	nan
29	4921	DISCHARGING	29-10-25 04:29:59	29-10-25 04:35:20	5.35	90.4	89.6	99.6	3.37	3.4	99.13
29	4922	DISCHARGING	29-10-25 04:50:16	29-10-25 05:02:16	12.0	87.2	85.2	99.6	8.43	7.74	91.92
29	4923	DISCHARGING	29-10-25 05:07:20	29-10-25 05:44:24	37.06	84.8	81.2	99.6	15.17	15.1	99.58
29	4924	DISCHARGING	29-10-25 05:49:24	29-10-25 05:57:24	7.99	80.8	80.4	99.6	1.68	2.99	22.56
29	4925	DISCHARGING	29-10-25 06:12:21	29-10-25 06:44:00	31.65	77.6	72.4	99.6	21.91	24.94	86.15
29	4926	DISCHARGING	29-10-25 06:49:06	29-10-25 07:22:44	33.62	71.2	66.4	99.6	20.22	20.57	98.27
29	4927	CHARGING	29-10-25 07:22:44	29-10-25 07:36:49	14.08	66.4	78.4	99.6	50.56	53.66	93.87
29	4928	CHARGING	29-10-25 07:55:03	29-10-25 07:57:22	2.31	85.6	86.8	99.6	5.06	10.56	-8.79
29	4929	DISCHARGING	29-10-25 07:57:23	29-10-25 08:14:39	17.27	86.8	84.0	99.6	11.8	10.85	91.98

Vehicle 29 – Session SoC Accuracy (Page 9/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
29	4930	DISCHARGING	29-10-25 08:34:41	29-10-25 11:06:53	152.2	80.4	59.2	99.6	89.32	93.14	95.72
29	4931	DISCHARGING	29-10-25 11:13:33	29-10-25 11:48:25	34.86	58.4	55.2	99.6	13.48	11.17	82.83
29	4932	DISCHARGING	29-10-25 12:03:22	29-10-25 12:13:31	10.14	54.0	53.6	99.6	1.68	4.78	-83.75
29	4933	DISCHARGING	29-10-25 12:18:32	29-10-25 12:59:14	40.7	53.2	50.8	99.6	10.11	11.16	89.67
29	4934	DISCHARGING	29-10-25 13:15:33	29-10-25 14:38:44	83.19	49.6	44.0	99.6	23.59	23.56	99.88
29	4935	DISCHARGING	29-10-25 14:46:45	29-10-25 15:04:49	18.07	44.0	42.4	99.6	6.74	5.11	75.84
29	4936	CHARGING	29-10-25 15:04:52	29-10-25 15:07:37	2.75	42.4	42.4	99.6	0.0	1.15	nan
29	4937	DISCHARGING	29-10-25 15:07:38	29-10-25 15:08:27	0.82	42.4	42.4	99.6	0.0	0.0	nan
29	4938	CHARGING	29-10-25 15:09:32	29-10-25 16:09:46	60.24	42.4	100.0	99.6	242.67	217.29	89.54
29	4939	DISCHARGING	29-10-25 16:09:48	29-10-25 21:23:15	313.46	100.0	56.8	99.6	182.0	181.78	99.88
29	4940	CHARGING	29-10-25 21:23:17	29-10-25 22:06:21	43.07	56.8	84.8	99.6	117.97	159.63	64.68
29	4941	DISCHARGING	29-10-25 22:06:22	30-10-25 04:14:30	368.14	84.8	38.8	99.6	193.8	190.97	98.54
29	4942	DISCHARGING	30-10-25 04:33:44	30-10-25 04:54:31	20.79	38.8	38.8	99.6	0.0	0.19	nan
29	4943	CHARGING	30-10-25 04:58:59	30-10-25 04:59:37	0.64	38.8	38.8	99.6	0.0	0.02	nan
29	4945	CHARGING	30-10-25 05:00:13	30-10-25 05:05:55	5.71	38.8	40.4	99.6	6.74	8.44	74.84
29	4947	CHARGING	30-10-25 05:06:39	30-10-25 06:33:07	86.47	40.4	85.6	99.6	190.43	205.28	92.2
29	4948	CHARGING	30-10-25 06:41:07	30-10-25 06:43:14	2.11	88.8	100.0	99.6	47.19	3.03	6.43
29	4950	CHARGING	30-10-25 06:43:17	30-10-25 07:00:45	17.48	100.0	100.0	99.6	0.0	0.11	nan
29	4951	DISCHARGING	30-10-25 07:00:46	30-10-25 10:54:58	234.2	100.0	92.4	99.6	32.02	22.19	69.31
29	4952	DISCHARGING	30-10-25 11:18:16	30-10-25 11:25:39	7.38	92.4	92.4	99.6	0.0	0.07	nan
29	4953	CHARGING	30-10-25 11:26:13	30-10-25 11:38:48	12.6	92.4	100.0	99.6	32.02	28.35	88.53
29	4954	DISCHARGING	30-10-25 11:55:45	30-10-25 12:27:09	31.39	100.0	99.6	99.6	1.68	2.02	80.32
29	4955	DISCHARGING	30-10-25 12:36:48	30-10-25 13:59:35	82.8	99.6	95.2	99.6	18.54	15.08	81.34
29	4956	DISCHARGING	30-10-25 14:07:36	30-10-25 14:08:14	0.63	94.8	94.8	99.6	0.0	0.12	nan
29	4957	DISCHARGING	30-10-25 14:24:50	30-10-25 15:54:55	90.09	94.0	90.0	99.6	16.85	13.57	80.5
29	4958	DISCHARGING	30-10-25 16:05:33	30-10-25 16:06:57	1.4	88.8	88.8	99.6	0.0	0.44	nan
29	4959	DISCHARGING	30-10-25 16:18:17	30-10-25 16:48:48	30.52	86.8	82.8	99.6	16.85	15.26	90.54
29	4960	DISCHARGING	30-10-25 17:03:42	30-10-25 17:18:18	14.6	81.2	79.6	99.6	6.74	7.47	89.19
29	4963	CHARGING	30-10-25 17:23:27	30-10-25 17:27:46	4.32	79.6	80.0	99.6	1.68	1.79	93.66
29	4965	CHARGING	30-10-25 17:28:37	30-10-25 17:30:02	1.42	80.0	80.0	99.6	0.0	0.98	nan

Vehicle 29 — Session SoC Accuracy (Page 10/10)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
29	4966	DISCHARGING	30-10-25 17:30:03	30-10-25 17:32:51	2.8	80.0	79.6	99.6	1.68	0.17	9.84
29	4967	CHARGING	30-10-25 17:32:52	30-10-25 17:33:43	0.86	79.6	80.0	99.6	1.68	0.32	18.8
29	4969	CHARGING	30-10-25 17:34:28	30-10-25 17:39:24	4.93	80.0	80.0	99.6	0.0	1.22	nan
29	4971	CHARGING	30-10-25 17:39:26	30-10-25 18:13:51	34.41	80.0	93.2	99.6	55.61	75.73	63.83
29	4974	DISCHARGING	30-10-25 18:13:54	30-10-25 19:15:57	62.05	93.2	80.8	99.6	52.24	52.81	98.91
29	4975	DISCHARGING	30-10-25 19:30:53	30-10-25 22:36:48	185.91	78.0	48.8	99.6	123.02	127.44	96.4
29	4976	DISCHARGING	30-10-25 22:58:20	31-10-25 00:02:17	63.94	46.4	42.0	99.6	18.54	14.47	78.05
29	4977	CHARGING	31-10-25 00:02:18	31-10-25 01:21:10	78.88	42.0	100.0	99.6	244.36	239.16	97.87
29	4982	DISCHARGING	31-10-25 01:24:07	31-10-25 01:27:42	3.58	100.0	99.6	99.6	1.68	0.26	15.16
29	4983	DISCHARGING	31-10-25 01:37:46	31-10-25 01:39:30	1.73	99.6	99.6	99.6	0.0	0.06	nan
29	4985	DISCHARGING	31-10-25 02:27:17	31-10-25 08:14:29	347.19	99.6	52.4	99.6	198.86	203.9	97.46
29	4986	DISCHARGING	31-10-25 08:26:06	31-10-25 08:41:54	15.82	50.0	47.6	99.6	10.11	9.3	91.97
29	4987	CHARGING	31-10-25 08:41:56	31-10-25 08:54:55	12.99	47.6	58.4	99.6	45.5	49.22	91.83
29	4988	CHARGING	31-10-25 09:02:20	31-10-25 09:08:31	6.18	65.2	70.8	99.6	23.59	28.61	78.73
29	4989	CHARGING	31-10-25 09:18:50	31-10-25 09:19:09	0.32	70.8	70.8	99.6	0.0	4.36	nan
29	4990	DISCHARGING	31-10-25 09:19:10	31-10-25 09:22:25	3.26	76.8	76.8	99.6	0.0	0.36	nan
29	4991	CHARGING	31-10-25 09:22:27	31-10-25 09:28:19	5.88	76.8	79.2	99.6	10.11	10.65	94.69
29	4993	CHARGING	31-10-25 09:29:10	31-10-25 09:45:11	16.02	79.2	91.2	99.6	50.56	48.82	96.56
29	4994	DISCHARGING	31-10-25 09:45:12	31-10-25 11:22:00	96.79	91.2	66.4	99.6	104.48	106.56	98.02
29	4995	DISCHARGING	31-10-25 11:34:59	31-10-25 12:47:45	72.76	62.0	50.8	99.6	47.19	51.74	90.36
29	4996	DISCHARGING	31-10-25 12:59:32	31-10-25 13:20:55	21.39	50.0	48.8	99.6	5.06	4.42	87.49
29	4997	DISCHARGING	31-10-25 13:28:13	31-10-25 13:37:09	8.93	48.4	48.0	99.6	1.68	2.17	70.99
29	4998	DISCHARGING	31-10-25 13:50:06	31-10-25 15:25:19	95.2	47.2	42.8	99.6	18.54	13.28	71.66
29	4999	CHARGING	31-10-25 15:28:57	31-10-25 16:39:11	70.23	42.8	80.8	99.6	160.1	183.78	85.2
29	5000	DISCHARGING	31-10-25 16:39:12	31-10-25 16:53:23	14.17	80.8	79.6	99.6	5.06	4.2	83.12
29	5001	DISCHARGING	31-10-25 17:12:21	31-10-25 17:40:43	28.35	78.0	77.2	99.6	3.37	1.48	43.78
29	5002	DISCHARGING	31-10-25 17:45:46	31-10-25 17:51:35	5.81	77.2	76.8	99.6	1.68	0.29	17.39
29	5003	DISCHARGING	31-10-25 18:08:43	31-10-25 18:29:58	21.26	76.4	75.2	99.6	5.06	6.31	75.25

Vehicle 30 – Session SoC Accuracy (Page 1/2)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
30	5319	DISCHARGING	18-10-25 07:28:02	18-10-25 09:59:03	151.01	70.4	64.8	99.6	23.59	18.27	77.43
30	5320	DISCHARGING	18-10-25 11:05:02	18-10-25 11:16:32	11.49	64.8	64.8	99.6	0.0	0.21	nan
30	5321	CHARGING	18-10-25 11:16:33	18-10-25 11:19:47	3.23	64.8	66.0	99.6	5.06	6.83	64.99
30	5322	CHARGING	18-10-25 11:29:39	18-10-25 12:55:18	85.65	71.6	93.6	99.6	92.69	119.93	70.6
30	5325	DISCHARGING	25-10-25 06:05:54	25-10-25 13:55:26	469.54	71.2	64.4	100.0	28.76	8.58	29.81
30	5326	DISCHARGING	25-10-25 14:16:36	25-10-25 14:17:51	1.25	64.4	64.4	100.0	0.0	0.0	nan
30	5327	DISCHARGING	27-10-25 04:04:14	27-10-25 05:13:28	69.23	64.4	63.2	100.0	5.08	2.5	49.19
30	5328	DISCHARGING	27-10-25 05:22:47	27-10-25 06:34:59	72.2	62.8	61.6	100.0	5.08	2.05	40.32
30	5329	CHARGING	27-10-25 06:34:59	27-10-25 07:50:19	75.33	61.6	100.0	100.0	162.43	137.21	84.47
30	5332	DISCHARGING	27-10-25 08:11:42	27-10-25 11:50:05	218.38	100.0	97.2	100.0	11.84	0.22	1.88
30	5334	DISCHARGING	28-10-25 04:38:51	28-10-25 10:13:46	334.93	97.2	94.0	100.0	13.54	1.44	10.61
30	5336	DISCHARGING	28-10-25 10:52:49	28-10-25 13:47:56	175.12	94.0	92.8	100.0	5.08	0.02	0.42
30	5339	DISCHARGING	28-10-25 15:51:49	28-10-25 15:56:44	4.91	92.8	92.4	100.0	1.69	1.08	63.55
30	5340	DISCHARGING	28-10-25 16:08:15	28-10-25 17:25:38	77.39	91.2	85.6	100.0	23.69	23.18	97.84
30	5341	DISCHARGING	28-10-25 17:43:44	28-10-25 18:14:22	30.62	84.0	79.6	100.0	18.61	21.72	83.32
30	5342	DISCHARGING	28-10-25 18:31:55	28-10-25 19:52:45	80.84	76.8	66.8	100.0	42.3	44.28	95.32
30	5343	DISCHARGING	28-10-25 20:01:00	28-10-25 21:43:22	102.38	66.0	53.6	100.0	52.45	53.15	98.67
30	5344	DISCHARGING	29-10-25 01:14:14	29-10-25 01:19:23	5.15	53.6	53.6	100.0	0.0	0.18	nan
30	5345	CHARGING	29-10-25 01:19:24	29-10-25 02:22:10	62.76	53.6	77.2	100.0	99.83	104.42	95.4
30	5346	DISCHARGING	29-10-25 02:28:45	29-10-25 02:36:39	7.89	79.2	78.8	100.0	1.69	1.33	78.53
30	5347	CHARGING	29-10-25 02:36:48	29-10-25 03:13:20	36.54	78.8	100.0	100.0	89.68	68.28	76.14
30	5348	CHARGING	29-10-25 05:47:40	29-10-25 05:47:42	0.03	100.0	100.0	100.0	0.0	2.86	nan
30	5349	DISCHARGING	29-10-25 05:47:43	29-10-25 05:51:35	3.86	100.0	99.6	100.0	1.69	0.08	5.01
30	5351	DISCHARGING	30-10-25 14:24:05	30-10-25 14:27:02	2.96	99.6	99.6	100.0	0.0	0.12	nan
30	5354	DISCHARGING	30-10-25 19:16:31	30-10-25 20:04:44	48.22	99.6	96.0	100.0	15.23	13.73	90.14
30	5355	DISCHARGING	30-10-25 20:32:41	31-10-25 00:37:41	245.01	92.0	70.0	100.0	93.06	92.53	99.43
30	5356	CHARGING	31-10-25 02:33:12	31-10-25 02:40:49	7.62	70.0	71.6	100.0	6.77	6.22	91.95
30	5357	CHARGING	31-10-25 02:47:24	31-10-25 04:58:59	131.59	72.8	95.6	100.0	96.44	117.1	78.58
30	5360	CHARGING	31-10-25 05:38:26	31-10-25 05:46:56	8.51	95.6	100.0	100.0	18.61	2.99	16.06
30	5363	DISCHARGING	31-10-25 05:54:43	31-10-25 05:58:16	3.56	100.0	99.6	100.0	1.69	0.09	5.31

Vehicle 30 — Session SoC Accuracy (Page 2/2)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
30	5365	DISCHARGING	31-10-25 06:34:56	31-10-25 07:18:52	43.93	99.6	95.6	100.0	16.92	13.23	78.2
30	5366	DISCHARGING	31-10-25 08:43:17	31-10-25 10:22:10	98.89	95.6	91.6	100.0	16.92	15.48	91.52
30	5369	CHARGING	31-10-25 10:41:34	31-10-25 11:37:10	55.61	91.6	100.0	100.0	35.53	34.57	97.3
30	5371	DISCHARGING	31-10-25 13:07:11	31-10-25 13:10:12	3.02	100.0	99.6	100.0	1.69	0.14	7.96
30	5372	DISCHARGING	31-10-25 13:17:13	31-10-25 15:04:23	107.16	99.6	98.0	100.0	6.77	2.71	40.08
30	5374	DISCHARGING	31-10-25 15:46:07	31-10-25 15:47:51	1.73	98.0	98.0	100.0	0.0	0.03	nan
30	5375	DISCHARGING	31-10-25 16:29:15	31-10-25 18:29:59	120.74	98.0	97.2	100.0	3.38	1.74	51.53

Vehicle 31 – Session SoC Accuracy (Page 1/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
31	5376	DISCHARGING	14-10-25 11:26:05	14-10-25 15:32:04	245.98	85.6	82.8	100.0	11.84	2.01	16.97
31	5377	CHARGING	14-10-25 15:32:05	14-10-25 16:09:50	37.76	82.8	100.0	100.0	72.76	65.18	89.59
31	5379	DISCHARGING	14-10-25 16:46:19	14-10-25 16:56:02	9.73	100.0	99.2	100.0	3.38	2.24	66.28
31	5380	DISCHARGING	14-10-25 17:05:21	14-10-25 18:14:45	69.41	98.0	88.8	100.0	38.92	37.32	95.9
31	5381	DISCHARGING	14-10-25 18:21:21	14-10-25 18:50:49	29.47	88.0	85.2	100.0	11.84	11.92	99.39
31	5382	DISCHARGING	14-10-25 19:00:42	14-10-25 21:13:17	132.6	83.6	68.4	100.0	64.3	66.18	97.07
31	5383	DISCHARGING	14-10-25 21:44:29	14-10-25 22:52:53	68.39	63.2	58.0	100.0	22.0	22.53	97.56
31	5384	DISCHARGING	14-10-25 22:59:49	14-10-25 23:00:11	0.36	58.0	58.0	100.0	0.0	10.29	nan
31	5385	DISCHARGING	15-10-25 01:44:58	15-10-25 01:54:20	9.37	58.0	58.0	100.0	0.0	0.17	nan
31	5386	DISCHARGING	15-10-25 03:07:06	15-10-25 03:13:09	6.04	58.0	57.6	100.0	1.69	0.26	15.13
31	5387	CHARGING	15-10-25 03:13:49	15-10-25 04:20:29	66.67	57.6	100.0	100.0	179.35	173.9	96.96
31	5390	DISCHARGING	15-10-25 04:35:33	15-10-25 04:43:47	8.23	100.0	99.6	100.0	1.69	1.44	84.94
31	5391	DISCHARGING	15-10-25 04:50:55	15-10-25 05:09:56	19.02	99.6	99.2	100.0	1.69	0.24	13.9
31	5392	DISCHARGING	15-10-25 12:33:21	15-10-25 12:59:31	26.17	99.2	98.8	100.0	1.69	1.54	91.19
31	5393	DISCHARGING	15-10-25 14:27:44	15-10-25 14:59:57	32.22	98.8	96.8	100.0	8.46	6.9	81.5
31	5394	DISCHARGING	15-10-25 15:21:18	15-10-25 15:21:30	0.2	93.6	93.2	100.0	1.69	3.45	-3.86
31	5395	DISCHARGING	15-10-25 15:29:45	15-10-25 15:32:18	2.55	92.4	92.0	100.0	1.69	4.97	-93.51
31	5396	DISCHARGING	15-10-25 15:39:58	15-10-25 16:35:34	55.6	90.8	84.0	100.0	28.76	30.89	92.6
31	5397	DISCHARGING	15-10-25 16:48:43	15-10-25 17:52:51	64.15	82.4	77.6	100.0	20.3	19.49	96.01
31	5398	DISCHARGING	15-10-25 18:02:43	15-10-25 20:22:29	139.77	76.8	67.6	100.0	38.92	33.31	85.6
31	5401	CHARGING	15-10-25 20:30:01	15-10-25 21:31:02	61.02	67.2	68.8	100.0	6.77	7.22	93.26
31	5403	CHARGING	15-10-25 21:31:07	15-10-25 21:46:08	15.0	68.8	68.8	100.0	0.0	0.12	nan
31	5404	CHARGING	16-10-25 00:40:55	16-10-25 00:41:21	0.43	68.8	68.8	100.0	0.0	6.28	nan
31	5405	CHARGING	16-10-25 05:37:47	16-10-25 05:37:56	0.15	68.8	68.8	100.0	0.0	0.0	nan
31	5408	DISCHARGING	16-10-25 05:38:05	16-10-25 06:20:40	42.59	68.8	66.0	100.0	11.84	10.99	92.81
31	5409	DISCHARGING	16-10-25 10:03:55	16-10-25 10:41:14	37.31	66.0	63.6	100.0	10.15	8.95	88.14
31	5410	DISCHARGING	16-10-25 10:50:52	16-10-25 10:52:18	1.44	63.6	63.6	100.0	0.0	3.35	nan
31	5411	DISCHARGING	16-10-25 11:25:07	16-10-25 12:21:31	56.39	63.6	62.0	100.0	6.77	4.71	69.59
31	5412	DISCHARGING	16-10-25 12:32:28	16-10-25 12:33:31	1.05	61.6	61.6	100.0	0.0	0.11	nan
31	5413	DISCHARGING	16-10-25 14:46:21	16-10-25 14:55:13	8.87	61.6	61.6	100.0	0.0	0.02	nan

Vehicle 31 – Session SoC Accuracy (Page 2/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
31	5414	DISCHARGING	16-10-25 23:31:24	16-10-25 23:32:20	0.94	61.6	61.6	100.0	0.0	0.01	nan
31	5415	DISCHARGING	17-10-25 06:36:02	17-10-25 09:15:16	159.23	61.6	60.4	100.0	5.08	0.38	7.39
31	5416	CHARGING	17-10-25 09:17:22	17-10-25 10:07:09	49.79	60.4	100.0	100.0	167.51	167.59	99.95
31	5417	DISCHARGING	17-10-25 10:10:51	17-10-25 10:21:44	10.87	100.0	99.6	100.0	1.69	0.8	47.07
31	5418	DISCHARGING	17-10-25 10:41:50	17-10-25 10:45:02	3.19	99.6	99.6	100.0	0.0	0.36	nan
31	5419	DISCHARGING	17-10-25 14:54:36	17-10-25 14:59:55	5.32	99.6	99.6	100.0	0.0	0.22	nan
31	5422	DISCHARGING	18-10-25 04:43:54	18-10-25 05:52:12	68.3	99.6	98.8	100.0	3.38	0.07	2.05
31	5423	DISCHARGING	18-10-25 06:14:48	18-10-25 06:15:45	0.94	98.8	98.8	100.0	0.0	0.03	nan
31	5424	DISCHARGING	18-10-25 09:24:26	18-10-25 09:37:00	12.58	98.8	98.8	100.0	0.0	0.51	nan
31	5425	DISCHARGING	18-10-25 10:17:28	18-10-25 11:26:13	68.75	98.0	97.2	100.0	3.38	0.7	20.59
31	5427	DISCHARGING	18-10-25 13:35:08	18-10-25 14:38:38	63.5	95.6	92.4	100.0	13.54	9.44	69.77
31	5428	DISCHARGING	18-10-25 14:46:18	18-10-25 15:06:57	20.65	91.6	90.8	100.0	3.38	3.76	88.91
31	5429	DISCHARGING	18-10-25 15:13:31	18-10-25 19:10:49	237.3	90.4	53.6	100.0	155.66	156.43	99.51
31	5430	CHARGING	18-10-25 19:10:50	18-10-25 20:05:10	54.33	53.6	90.4	100.0	155.66	187.12	79.8
31	5431	DISCHARGING	18-10-25 20:05:10	19-10-25 02:28:28	383.29	90.4	44.8	100.0	192.89	193.86	99.49
31	5432	CHARGING	19-10-25 02:30:17	19-10-25 04:04:21	94.06	44.8	100.0	100.0	233.5	219.24	93.9
31	5436	DISCHARGING	19-10-25 04:54:28	19-10-25 05:33:01	38.54	100.0	99.6	100.0	1.69	0.24	14.2
31	5440	DISCHARGING	19-10-25 08:23:30	19-10-25 08:43:08	19.63	99.6	98.8	100.0	3.38	2.81	82.95
31	5443	DISCHARGING	19-10-25 10:13:07	19-10-25 10:29:42	16.59	98.8	98.0	100.0	3.38	1.74	51.51
31	5444	DISCHARGING	19-10-25 11:38:47	19-10-25 11:52:58	14.19	98.0	97.6	100.0	1.69	1.87	89.43
31	5446	DISCHARGING	19-10-25 12:33:22	19-10-25 13:23:03	49.69	96.8	96.8	100.0	0.0	0.02	nan
31	5447	DISCHARGING	19-10-25 13:42:46	19-10-25 13:43:55	1.16	96.4	96.4	100.0	0.0	0.56	nan
31	5448	DISCHARGING	19-10-25 13:56:31	19-10-25 14:05:09	8.63	96.0	95.2	100.0	3.38	2.11	62.36
31	5449	DISCHARGING	19-10-25 14:19:55	19-10-25 16:38:48	138.87	94.0	88.4	100.0	23.69	19.58	82.64
31	5451	DISCHARGING	19-10-25 17:11:52	19-10-25 19:17:08	125.27	88.0	75.2	100.0	54.14	55.66	97.19
31	5453	CHARGING	19-10-25 19:28:34	19-10-25 19:33:32	4.97	75.2	76.4	100.0	5.08	6.16	78.72
31	5455	CHARGING	19-10-25 19:35:44	19-10-25 19:38:00	2.28	76.4	76.8	100.0	1.69	0.95	56.18
31	5457	CHARGING	19-10-25 19:40:50	19-10-25 19:41:39	0.81	76.8	76.8	100.0	0.0	0.78	nan
31	5458	DISCHARGING	19-10-25 19:41:39	19-10-25 19:41:46	0.13	nan	nan	100.0	nan	0.0	nan
31	5459	CHARGING	19-10-25 19:41:48	19-10-25 19:44:01	2.22	76.8	77.6	100.0	3.38	3.19	94.16

Vehicle 31 – Session SoC Accuracy (Page 3/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
31	5461	CHARGING	19-10-25 19:44:52	19-10-25 19:50:29	5.62	77.6	79.6	100.0	8.46	9.7	85.41
31	5463	CHARGING	19-10-25 19:55:08	19-10-25 20:11:46	16.63	79.6	84.8	100.0	22.0	54.15	-46.2
31	5464	DISCHARGING	19-10-25 20:11:46	19-10-25 23:04:14	172.47	84.8	56.0	100.0	121.82	124.61	97.71
31	5465	DISCHARGING	19-10-25 23:15:45	19-10-25 23:20:21	4.6	54.4	54.0	100.0	1.69	5.01	-96.02
31	5466	DISCHARGING	19-10-25 23:34:36	20-10-25 00:51:20	76.73	51.2	40.8	100.0	43.99	40.15	91.25
31	5467	DISCHARGING	20-10-25 01:10:30	20-10-25 01:20:12	9.71	38.4	37.6	100.0	3.38	2.86	84.62
31	5468	DISCHARGING	20-10-25 09:47:56	20-10-25 09:53:49	5.9	37.6	36.4	100.0	5.08	6.55	71.03
31	5470	DISCHARGING	20-10-25 10:45:21	20-10-25 10:48:45	3.4	36.4	36.4	100.0	0.0	8.59	nan
31	5471	CHARGING	20-10-25 10:48:46	20-10-25 10:51:53	3.12	36.4	36.4	100.0	0.0	3.65	nan
31	5473	CHARGING	20-10-25 10:51:55	20-10-25 12:08:13	76.29	36.4	100.0	100.0	269.03	256.34	95.28
31	5474	DISCHARGING	20-10-25 12:08:14	20-10-25 12:08:43	0.48	100.0	100.0	100.0	0.0	0.87	nan
31	5475	DISCHARGING	20-10-25 12:53:26	20-10-25 14:42:37	109.17	100.0	96.4	100.0	15.23	7.97	52.37
31	5476	DISCHARGING	20-10-25 15:02:51	20-10-25 17:34:54	152.04	96.4	89.2	100.0	30.46	26.52	87.09
31	5477	DISCHARGING	20-10-25 17:47:29	20-10-25 18:15:09	27.66	88.4	84.4	100.0	16.92	17.18	98.48
31	5478	DISCHARGING	20-10-25 18:32:40	20-10-25 19:05:31	32.86	81.6	74.8	100.0	28.76	31.32	91.12
31	5479	DISCHARGING	20-10-25 19:15:23	20-10-25 19:17:52	2.48	72.8	72.0	100.0	3.38	5.45	39.04
31	5480	DISCHARGING	20-10-25 19:25:32	20-10-25 20:23:55	58.38	70.4	60.0	100.0	43.99	46.94	93.29
31	5481	CHARGING	20-10-25 20:23:56	20-10-25 20:24:31	0.59	60.0	60.0	100.0	0.0	1.44	nan
31	5482	DISCHARGING	20-10-25 20:24:32	20-10-25 20:24:32	0.01	60.0	60.0	100.0	0.0	0.0	nan
31	5483	CHARGING	20-10-25 20:24:33	20-10-25 20:31:59	7.42	60.0	63.2	100.0	13.54	13.92	97.16
31	5487	CHARGING	20-10-25 20:33:11	20-10-25 21:17:23	44.19	63.2	91.2	100.0	118.44	152.49	71.25
31	5488	DISCHARGING	20-10-25 21:17:23	21-10-25 00:50:31	213.12	91.2	53.6	100.0	159.05	150.36	94.54
31	5489	DISCHARGING	21-10-25 02:43:28	21-10-25 02:53:28	10.0	53.6	53.6	100.0	0.0	0.18	nan
31	5490	DISCHARGING	21-10-25 03:09:21	21-10-25 03:15:27	6.11	53.2	53.2	100.0	0.0	0.16	nan
31	5491	DISCHARGING	21-10-25 03:22:03	21-10-25 04:39:34	77.51	53.2	52.0	100.0	5.08	0.4	7.95
31	5492	CHARGING	21-10-25 04:49:26	21-10-25 04:50:36	1.17	51.6	52.0	100.0	1.69	1.54	91.33
31	5494	CHARGING	21-10-25 04:52:28	21-10-25 05:03:13	10.74	52.0	59.2	100.0	30.46	33.82	88.96
31	5495	CHARGING	21-10-25 05:13:05	21-10-25 06:11:36	58.53	64.8	100.0	100.0	148.9	133.28	89.51
31	5498	DISCHARGING	21-10-25 06:56:22	21-10-25 07:06:46	10.39	100.0	99.6	100.0	1.69	0.56	33.28
31	5500	DISCHARGING	21-10-25 07:32:25	21-10-25 07:34:25	2.0	99.6	99.6	100.0	0.0	0.09	nan

Vehicle 31 – Session SoC Accuracy (Page 4/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
31	5501	DISCHARGING	21-10-25 10:20:30	21-10-25 10:46:21	25.85	99.6	99.2	100.0	1.69	0.51	30.4
31	5502	DISCHARGING	21-10-25 11:00:50	21-10-25 11:39:52	39.02	99.2	98.8	100.0	1.69	0.32	18.99
31	5504	DISCHARGING	21-10-25 12:37:09	21-10-25 13:08:27	31.31	98.8	96.0	100.0	11.84	9.97	84.2
31	5505	DISCHARGING	21-10-25 13:22:45	21-10-25 13:43:18	20.56	95.6	94.8	100.0	3.38	3.29	97.29
31	5506	DISCHARGING	21-10-25 14:14:33	21-10-25 16:53:55	159.36	93.6	86.0	100.0	32.15	27.66	86.05
31	5507	DISCHARGING	21-10-25 17:10:21	21-10-25 17:18:43	8.36	84.8	84.8	100.0	0.0	1.82	nan
31	5508	DISCHARGING	21-10-25 17:29:41	21-10-25 17:56:51	27.18	83.6	83.2	100.0	1.69	0.15	8.64
31	5509	CHARGING	21-10-25 17:56:52	21-10-25 17:59:17	2.41	83.2	83.2	100.0	0.0	0.95	nan
31	5511	CHARGING	21-10-25 18:00:12	21-10-25 18:12:19	12.1	83.2	88.4	100.0	22.0	43.85	0.66
31	5512	CHARGING	21-10-25 18:20:34	21-10-25 18:20:42	0.15	88.4	88.4	100.0	0.0	4.04	nan
31	5513	DISCHARGING	21-10-25 18:21:58	21-10-25 22:51:02	269.07	88.4	60.0	100.0	120.13	140.54	83.02
31	5514	DISCHARGING	21-10-25 23:05:51	21-10-25 23:20:50	14.99	58.0	56.0	100.0	8.46	7.87	92.98
31	5515	DISCHARGING	21-10-25 23:26:52	22-10-25 00:23:32	56.66	55.2	49.6	99.96	23.68	23.64	99.85
31	5516	DISCHARGING	22-10-25 00:31:46	22-10-25 01:03:49	32.04	48.8	46.8	99.6	8.43	3.49	41.39
31	5517	CHARGING	22-10-25 01:03:49	22-10-25 01:15:14	11.41	46.8	56.0	99.6	38.76	40.96	94.32
31	5518	CHARGING	22-10-25 01:22:55	22-10-25 02:04:55	42.01	62.8	100.0	99.6	156.73	142.8	91.11
31	5520	DISCHARGING	22-10-25 03:59:36	22-10-25 04:03:01	3.41	100.0	99.6	99.6	1.68	0.02	1.34
31	5521	DISCHARGING	22-10-25 04:10:50	22-10-25 06:22:09	131.32	99.6	96.4	99.6	13.48	1.36	10.11
31	5522	DISCHARGING	22-10-25 06:32:12	22-10-25 06:32:32	0.34	96.4	96.4	99.6	0.0	3.48	nan
31	5523	DISCHARGING	22-10-25 06:52:32	22-10-25 10:01:15	188.72	96.4	95.2	99.6	5.06	2.26	44.69
31	5527	DISCHARGING	22-10-25 14:46:39	22-10-25 15:41:24	54.75	94.8	91.6	99.6	13.48	14.35	93.53
31	5528	DISCHARGING	22-10-25 15:52:22	22-10-25 16:10:45	18.38	90.8	89.6	99.6	5.06	5.88	83.61
31	5529	DISCHARGING	22-10-25 16:28:50	22-10-25 16:54:33	25.71	88.4	86.0	99.6	10.11	11.05	90.74
31	5530	DISCHARGING	22-10-25 17:20:18	22-10-25 18:50:45	90.46	84.4	72.0	99.6	52.24	51.14	97.89
31	5531	DISCHARGING	22-10-25 18:58:43	22-10-25 19:31:28	32.75	70.0	62.8	99.6	30.33	31.53	96.06
31	5532	DISCHARGING	22-10-25 19:47:44	22-10-25 20:24:43	36.99	60.4	55.2	99.6	21.91	23.39	93.23
31	5533	CHARGING	22-10-25 20:24:47	22-10-25 21:18:43	53.93	55.2	91.2	99.6	151.67	183.81	78.81
31	5534	DISCHARGING	22-10-25 21:18:45	22-10-25 23:38:13	139.47	91.2	59.2	99.6	134.82	138.67	97.14
31	5535	DISCHARGING	22-10-25 23:43:15	22-10-25 23:44:23	1.12	58.4	58.4	99.6	0.0	1.99	nan
31	5536	DISCHARGING	22-10-25 23:51:00	23-10-25 00:00:42	9.69	57.6	56.4	99.6	5.06	7.34	54.87

Vehicle 31 – Session SoC Accuracy (Page 5/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
31	5537	DISCHARGING	23-10-25 00:41:34	23-10-25 01:11:54	30.33	52.0	50.0	99.6	8.43	11.1	68.2
31	5538	DISCHARGING	23-10-25 01:18:17	23-10-25 01:57:39	39.37	49.2	47.6	99.6	6.74	9.6	57.63
31	5541	CHARGING	23-10-25 02:00:18	23-10-25 03:16:37	76.32	47.6	100.0	99.6	220.76	212.24	96.14
31	5542	DISCHARGING	23-10-25 04:10:04	23-10-25 04:15:35	5.51	100.0	99.6	99.6	1.68	0.11	6.37
31	5543	DISCHARGING	23-10-25 05:56:50	23-10-25 05:57:16	0.44	99.6	99.6	99.6	0.0	0.13	nan
31	5544	DISCHARGING	23-10-25 08:38:23	23-10-25 08:41:13	2.83	99.6	99.6	99.6	0.0	3.81	nan
31	5545	DISCHARGING	23-10-25 11:54:28	23-10-25 13:27:58	93.51	99.6	96.0	99.6	15.17	12.52	82.53
31	5546	DISCHARGING	23-10-25 13:33:01	23-10-25 16:08:44	155.71	95.2	89.6	99.6	23.59	21.15	89.64
31	5547	DISCHARGING	23-10-25 16:20:01	23-10-25 18:05:00	104.99	89.6	79.6	99.6	42.13	40.31	95.69
31	5548	CHARGING	23-10-25 18:11:22	23-10-25 18:33:55	22.54	80.0	91.2	99.6	47.19	85.98	17.79
31	5549	DISCHARGING	23-10-25 18:33:57	23-10-25 20:16:54	102.96	91.2	76.0	99.6	64.04	62.5	97.59
31	5550	DISCHARGING	23-10-25 20:28:09	23-10-25 20:35:14	7.09	74.0	73.6	99.6	1.68	2.23	67.48
31	5551	DISCHARGING	23-10-25 20:40:17	23-10-25 20:55:20	15.05	73.6	70.8	99.6	11.8	11.31	95.88
31	5552	DISCHARGING	23-10-25 21:08:31	24-10-25 00:55:18	226.78	68.0	37.6	99.6	128.08	128.32	99.81
31	5553	CHARGING	24-10-25 00:55:19	24-10-25 02:08:33	73.22	37.6	86.0	99.6	203.91	233.48	85.5
31	5554	CHARGING	24-10-25 02:20:06	24-10-25 02:20:30	0.41	86.0	86.0	99.6	0.0	2.09	nan
31	5555	DISCHARGING	24-10-25 02:20:32	24-10-25 02:26:49	6.29	86.0	86.0	99.6	0.0	1.0	nan
31	5556	DISCHARGING	24-10-25 02:48:47	24-10-25 03:23:30	34.72	99.6	97.2	99.6	10.11	8.56	84.64
31	5557	DISCHARGING	24-10-25 03:35:06	24-10-25 07:23:22	228.27	96.0	78.0	99.6	75.83	69.43	91.56
31	5558	DISCHARGING	24-10-25 07:51:19	24-10-25 08:52:19	61.01	71.6	59.6	99.6	50.56	56.55	88.15
31	5561	CHARGING	24-10-25 09:03:46	24-10-25 09:49:58	46.2	59.2	90.0	99.6	129.76	177.98	62.84
31	5562	DISCHARGING	24-10-25 09:50:00	24-10-25 12:04:46	134.76	90.0	58.4	99.6	133.13	137.45	96.76
31	5563	DISCHARGING	24-10-25 12:17:13	24-10-25 13:58:21	101.14	57.6	48.8	99.6	37.08	33.34	89.91
31	5564	CHARGING	24-10-25 13:58:33	24-10-25 15:07:33	69.0	48.8	100.0	99.6	215.71	177.46	82.27
31	5565	DISCHARGING	24-10-25 15:07:37	24-10-25 16:06:44	59.12	100.0	94.8	99.6	21.91	19.55	89.26
31	5566	DISCHARGING	24-10-25 16:22:57	24-10-25 21:31:01	308.08	94.0	63.6	99.6	128.08	124.72	97.38
31	5567	CHARGING	24-10-25 21:31:02	24-10-25 21:48:13	17.18	63.6	76.8	99.6	55.61	61.3	89.77
31	5568	DISCHARGING	24-10-25 21:53:11	24-10-25 22:02:00	8.81	80.0	78.4	99.6	6.74	6.82	98.87
31	5569	DISCHARGING	24-10-25 22:23:25	24-10-25 22:36:48	13.39	74.4	72.0	99.6	10.11	11.7	84.29
31	5570	DISCHARGING	24-10-25 22:46:42	25-10-25 00:49:22	122.67	70.0	50.8	99.6	80.89	85.23	94.63

Vehicle 31 – Session SoC Accuracy (Page 6/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
31	5571	DISCHARGING	25-10-25 01:09:09	25-10-25 01:09:36	0.45	48.8	48.8	99.6	0.0	0.18	nan
31	5572	DISCHARGING	25-10-25 01:30:59	25-10-25 02:11:58	40.97	46.8	43.2	99.6	15.17	16.1	93.88
31	5573	CHARGING	25-10-25 02:13:02	25-10-25 04:06:57	113.9	43.2	100.0	99.6	239.3	252.8	94.36
31	5577	DISCHARGING	25-10-25 05:37:47	25-10-25 05:41:10	3.39	100.0	99.6	99.6	1.68	0.35	20.98
31	5578	DISCHARGING	25-10-25 06:36:53	25-10-25 06:48:07	11.23	99.6	99.2	99.6	1.68	1.69	99.61
31	5580	DISCHARGING	25-10-25 08:37:04	25-10-25 10:23:47	106.72	99.2	97.2	99.6	8.43	1.99	23.65
31	5582	DISCHARGING	25-10-25 14:03:16	25-10-25 14:36:11	32.91	97.2	96.4	99.6	3.37	3.64	91.98
31	5583	DISCHARGING	25-10-25 14:44:09	25-10-25 14:46:44	2.58	96.0	95.6	99.6	1.68	0.57	33.74
31	5584	DISCHARGING	25-10-25 14:58:00	25-10-25 17:06:29	128.49	95.6	87.6	99.6	33.7	32.8	97.31
31	5585	DISCHARGING	25-10-25 17:27:35	25-10-25 17:32:22	4.78	84.0	84.0	99.6	0.0	0.22	nan
31	5586	DISCHARGING	25-10-25 17:39:00	25-10-25 17:46:39	7.65	82.8	81.6	99.6	5.06	4.37	86.44
31	5587	DISCHARGING	25-10-25 17:59:51	25-10-25 18:06:03	6.2	80.0	79.2	99.6	3.37	6.89	-4.39
31	5588	DISCHARGING	25-10-25 18:19:02	25-10-25 19:10:33	51.5	77.2	66.8	99.6	43.82	45.9	95.25
31	5589	DISCHARGING	25-10-25 19:30:04	25-10-25 20:07:52	37.79	62.4	56.4	99.6	25.28	26.4	95.55
31	5590	CHARGING	25-10-25 20:07:53	25-10-25 21:01:40	53.8	56.4	91.6	99.6	148.3	185.15	75.15
31	5591	DISCHARGING	25-10-25 21:01:44	25-10-25 22:58:36	116.87	91.6	64.8	99.6	112.91	113.56	99.43
31	5592	DISCHARGING	25-10-25 23:09:54	26-10-25 01:50:54	161.01	62.0	48.0	99.6	58.98	59.52	99.09
31	5593	DISCHARGING	26-10-25 06:15:09	26-10-25 06:34:53	19.73	48.0	47.6	99.6	1.68	0.14	8.54
31	5595	CHARGING	26-10-25 08:20:00	26-10-25 09:53:31	93.53	47.6	100.0	99.6	220.76	199.85	90.52
31	5596	DISCHARGING	26-10-25 09:53:32	26-10-25 10:50:38	57.1	100.0	98.0	99.6	8.43	2.97	35.28
31	5597	DISCHARGING	26-10-25 12:47:40	26-10-25 12:50:25	2.74	98.0	98.0	99.6	0.0	0.0	nan
31	5598	DISCHARGING	26-10-25 13:35:29	26-10-25 19:01:13	325.74	98.0	78.4	99.6	82.58	78.22	94.73
31	5599	CHARGING	26-10-25 19:01:14	26-10-25 19:27:35	26.34	78.4	90.4	99.6	50.56	92.7	16.64
31	5600	DISCHARGING	26-10-25 19:27:36	26-10-25 21:31:41	124.09	90.4	72.4	99.6	75.83	76.96	98.52
31	5601	DISCHARGING	26-10-25 21:41:20	27-10-25 00:43:07	181.78	70.8	47.6	99.6	97.74	100.13	97.56
31	5602	DISCHARGING	27-10-25 00:56:19	27-10-25 01:51:26	55.11	46.4	42.8	99.6	15.17	12.26	80.85
31	5603	CHARGING	27-10-25 01:59:32	27-10-25 03:27:41	88.15	42.8	100.0	99.6	240.99	217.95	90.44
31	5605	DISCHARGING	27-10-25 05:44:25	27-10-25 08:08:36	144.19	100.0	99.6	99.6	1.68	0.34	20.34
31	5607	DISCHARGING	27-10-25 13:01:41	27-10-25 13:24:02	22.35	99.6	99.6	99.6	0.0	1.62	nan
31	5608	DISCHARGING	27-10-25 14:00:13	27-10-25 14:48:28	48.26	99.6	96.8	99.6	11.8	9.25	78.39

Vehicle 31 – Session SoC Accuracy (Page 7/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
31	5609	DISCHARGING	27-10-25 14:54:51	27-10-25 16:21:41	86.83	96.4	91.2	99.6	21.91	19.78	90.3
31	5610	DISCHARGING	27-10-25 16:36:18	27-10-25 20:23:57	227.64	90.8	56.4	99.6	144.93	147.53	98.21
31	5611	CHARGING	27-10-25 20:24:00	27-10-25 20:32:40	8.66	56.4	60.0	99.6	15.17	16.75	89.54
31	5612	DISCHARGING	27-10-25 21:25:10	28-10-25 01:49:16	264.11	88.0	42.4	99.6	192.12	188.97	98.36
31	5613	DISCHARGING	28-10-25 02:29:21	28-10-25 02:37:06	7.75	42.4	42.4	99.6	0.0	0.19	nan
31	5614	CHARGING	28-10-25 02:43:48	28-10-25 04:12:44	88.93	42.4	100.0	99.6	242.67	222.59	91.72
31	5618	DISCHARGING	28-10-25 07:28:30	28-10-25 07:41:29	12.98	100.0	99.6	99.6	1.68	1.02	60.45
31	5619	DISCHARGING	28-10-25 08:10:15	28-10-25 08:16:06	5.85	99.6	99.6	99.6	0.0	0.45	nan
31	5620	DISCHARGING	28-10-25 09:27:06	28-10-25 09:32:40	5.58	99.6	99.2	99.6	1.68	3.35	0.97
31	5622	DISCHARGING	28-10-25 10:40:37	28-10-25 10:55:21	14.73	99.2	98.8	99.6	1.68	1.56	92.54
31	5623	DISCHARGING	28-10-25 11:15:58	28-10-25 16:44:44	328.76	98.8	82.0	99.6	70.78	62.76	88.67
31	5626	CHARGING	28-10-25 16:44:50	28-10-25 17:02:40	17.84	82.0	90.8	99.6	37.08	46.72	73.99
31	5627	DISCHARGING	28-10-25 17:02:41	28-10-25 17:13:25	10.73	90.8	88.8	99.6	8.43	8.97	93.53
31	5628	DISCHARGING	28-10-25 17:20:03	28-10-25 21:16:25	236.37	88.0	50.8	99.6	156.73	153.8	98.13
31	5629	DISCHARGING	28-10-25 21:21:29	28-10-25 21:33:42	12.21	50.8	49.2	99.6	6.74	7.31	91.56
31	5630	DISCHARGING	28-10-25 21:40:21	28-10-25 22:50:07	69.76	48.0	41.2	99.6	28.65	28.87	99.22
31	5631	CHARGING	28-10-25 22:50:08	29-10-25 00:29:05	98.94	41.2	100.0	99.6	247.73	241.38	97.44
31	5634	DISCHARGING	29-10-25 01:38:07	29-10-25 02:49:09	71.02	100.0	96.4	99.6	15.17	11.17	73.62
31	5635	DISCHARGING	29-10-25 03:35:11	29-10-25 05:16:09	100.97	93.6	86.0	99.6	32.02	34.01	93.8
31	5636	DISCHARGING	29-10-25 05:22:47	29-10-25 08:01:54	159.11	84.8	46.8	99.6	160.1	161.54	99.1
31	5637	CHARGING	29-10-25 08:01:55	29-10-25 08:08:06	6.18	46.8	51.2	99.6	18.54	19.38	95.47
31	5638	CHARGING	29-10-25 08:14:40	29-10-25 08:17:19	2.65	56.4	58.8	99.6	10.11	12.95	71.91
31	5639	CHARGING	29-10-25 08:25:55	29-10-25 08:28:44	2.82	65.6	67.6	99.6	8.43	13.53	39.39
31	5640	CHARGING	29-10-25 08:35:06	29-10-25 08:58:38	23.53	72.8	91.2	99.6	77.52	67.25	86.75
31	5641	DISCHARGING	29-10-25 08:58:39	29-10-25 10:18:14	79.58	91.2	70.0	99.6	89.32	93.3	95.55
31	5642	DISCHARGING	29-10-25 10:26:15	29-10-25 12:55:08	148.88	68.0	46.0	99.6	92.69	95.87	96.56
31	5643	DISCHARGING	29-10-25 13:35:15	29-10-25 13:46:43	11.46	44.8	44.4	99.6	1.68	1.96	83.42
31	5644	CHARGING	29-10-25 13:46:44	29-10-25 14:28:31	41.78	44.4	60.4	99.6	67.41	70.17	95.91
31	5645	DISCHARGING	29-10-25 14:28:32	29-10-25 14:30:47	2.26	60.4	60.4	99.6	0.0	2.29	nan
31	5646	CHARGING	29-10-25 14:30:48	29-10-25 15:03:09	32.34	60.4	80.0	99.6	82.58	91.1	89.68

Vehicle 31 – Session SoC Accuracy (Page 8/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
31	5647	DISCHARGING	29-10-25 15:03:10	29-10-25 16:02:59	59.82	80.0	75.6	99.6	18.54	16.24	87.58
31	5648	DISCHARGING	29-10-25 16:10:57	29-10-25 17:04:04	53.13	75.2	72.8	99.6	10.11	8.08	79.94
31	5649	DISCHARGING	29-10-25 17:15:37	29-10-25 19:49:48	154.18	72.4	60.8	99.6	48.87	45.34	92.78
31	5650	CHARGING	29-10-25 19:49:50	29-10-25 20:33:15	43.42	60.8	91.2	99.6	128.08	157.99	76.64
31	5651	DISCHARGING	29-10-25 20:33:16	29-10-25 23:59:52	206.6	91.2	57.6	99.6	141.56	144.79	97.72
31	5652	DISCHARGING	30-10-25 00:14:43	30-10-25 02:09:58	115.26	55.6	42.4	99.6	55.61	57.0	97.5
31	5653	CHARGING	30-10-25 02:29:11	30-10-25 04:49:01	139.84	42.4	100.0	99.6	242.67	231.37	95.34
31	5659	DISCHARGING	30-10-25 06:18:15	30-10-25 06:27:02	8.79	100.0	99.6	99.6	1.68	1.58	93.61
31	5661	DISCHARGING	30-10-25 10:43:07	30-10-25 10:45:22	2.25	99.6	99.2	99.6	1.68	0.25	14.61
31	5662	DISCHARGING	30-10-25 12:42:05	30-10-25 12:44:14	2.15	99.2	99.2	99.6	0.0	2.78	nan
31	5663	DISCHARGING	30-10-25 12:59:27	30-10-25 13:54:06	54.63	99.2	96.0	99.6	13.48	9.6	71.18
31	5664	DISCHARGING	30-10-25 14:00:40	30-10-25 14:14:02	13.36	95.6	94.8	99.6	3.37	3.09	91.61
31	5665	DISCHARGING	30-10-25 14:24:01	30-10-25 15:34:03	70.03	94.4	90.0	99.6	18.54	16.47	88.83
31	5666	DISCHARGING	30-10-25 15:48:54	30-10-25 15:55:01	6.13	89.2	88.8	99.6	1.68	1.26	75.07
31	5667	DISCHARGING	30-10-25 16:16:25	30-10-25 16:17:32	1.13	87.2	86.8	99.6	1.68	1.73	97.28
31	5668	DISCHARGING	30-10-25 16:27:08	30-10-25 19:32:48	185.66	86.4	55.2	99.6	131.45	134.86	97.4
31	5669	CHARGING	30-10-25 19:32:50	30-10-25 19:52:42	19.87	55.2	68.8	99.6	57.3	59.38	96.37
31	5671	CHARGING	30-10-25 19:52:44	30-10-25 20:23:33	30.81	68.8	86.0	99.6	72.46	104.23	56.17
31	5672	DISCHARGING	30-10-25 20:23:36	31-10-25 00:43:51	260.25	86.0	46.8	99.6	165.15	163.1	98.76
31	5673	CHARGING	31-10-25 00:46:57	31-10-25 02:03:32	76.59	46.8	100.0	99.6	224.14	212.22	94.69
31	5676	DISCHARGING	31-10-25 02:07:33	31-10-25 02:17:52	10.31	100.0	99.6	99.6	1.68	0.76	44.85
31	5677	DISCHARGING	31-10-25 02:27:29	31-10-25 02:48:21	20.86	98.4	96.4	99.6	8.43	7.37	87.44
31	5678	DISCHARGING	31-10-25 03:03:12	31-10-25 05:34:56	151.72	96.0	82.0	99.6	58.98	54.37	92.18
31	5683	CHARGING	31-10-25 05:37:08	31-10-25 05:56:47	19.65	82.0	90.8	99.6	37.08	65.43	23.52
31	5684	DISCHARGING	31-10-25 05:56:48	31-10-25 06:46:28	49.66	90.8	84.8	99.6	25.28	26.34	95.82
31	5685	DISCHARGING	31-10-25 06:54:42	31-10-25 08:45:14	110.54	82.8	69.2	99.6	57.3	59.3	96.51
31	5686	DISCHARGING	31-10-25 08:53:29	31-10-25 13:56:22	302.89	68.0	36.4	99.6	133.13	132.08	99.21
31	5687	DISCHARGING	31-10-25 14:12:36	31-10-25 14:12:37	0.02	35.6	35.6	99.6	0.0	0.35	nan
31	5688	DISCHARGING	31-10-25 14:25:35	31-10-25 14:39:43	14.14	34.4	34.0	99.6	1.68	0.79	46.93
31	5689	CHARGING	31-10-25 14:39:44	31-10-25 15:45:15	65.52	34.0	85.6	99.6	217.4	244.71	87.44

Vehicle 31 — Session SoC Accuracy (Page 9/9)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
31	5690	DISCHARGING	31-10-25 15:45:16	31-10-25 17:15:11	89.92	85.6	78.4	99.6	30.33	29.89	98.53
31	5691	DISCHARGING	31-10-25 17:23:13	31-10-25 18:29:58	66.76	77.6	72.0	99.6	23.59	25.11	93.57

Vehicle 32 – Session SoC Accuracy (Page 1/4)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
32	5692	DISCHARGING	02-10-25 07:58:56	02-10-25 08:04:26	5.51	42.4	42.0	100.0	1.69	0.74	44.02
32	5693	DISCHARGING	02-10-25 09:09:46	02-10-25 09:10:55	1.14	42.0	42.0	100.0	0.0	4.29	nan
32	5694	DISCHARGING	03-10-25 03:34:46	03-10-25 03:35:12	0.43	42.0	42.0	100.0	0.0	1.08	nan
32	5696	DISCHARGING	03-10-25 03:58:36	03-10-25 04:04:00	5.39	42.0	42.0	100.0	0.0	0.1	nan
32	5697	DISCHARGING	03-10-25 04:18:17	03-10-25 07:45:57	207.67	41.6	38.8	100.0	11.84	2.08	17.54
32	5699	DISCHARGING	03-10-25 08:02:40	03-10-25 10:12:53	130.22	38.8	32.4	100.0	27.07	21.19	78.26
32	5700	CHARGING	03-10-25 10:12:55	03-10-25 10:12:58	0.06	32.4	32.4	100.0	0.0	0.2	nan
32	5702	CHARGING	03-10-25 10:13:00	03-10-25 10:15:46	2.77	32.4	32.4	100.0	0.0	0.42	nan
32	5704	CHARGING	03-10-25 10:15:48	03-10-25 10:22:20	6.52	32.4	33.6	100.0	5.08	4.96	97.64
32	5706	CHARGING	03-10-25 10:22:24	03-10-25 12:39:18	136.89	33.6	59.2	100.0	108.29	114.36	94.39
32	5707	DISCHARGING	03-10-25 12:42:55	03-10-25 13:36:09	53.22	59.2	58.4	100.0	3.38	2.73	80.66
32	5708	CHARGING	03-10-25 13:36:09	03-10-25 14:58:21	82.21	58.4	100.0	100.0	175.97	125.65	71.4
32	5709	DISCHARGING	03-10-25 14:58:22	03-10-25 16:53:18	114.94	100.0	97.6	100.0	10.15	4.19	41.25
32	5710	DISCHARGING	03-10-25 17:08:08	03-10-25 18:02:57	54.82	96.0	89.6	100.0	27.07	27.96	96.73
32	5711	DISCHARGING	03-10-25 18:14:30	03-10-25 19:52:48	98.3	87.6	75.6	100.0	50.76	52.36	96.85
32	5712	DISCHARGING	03-10-25 20:12:34	04-10-25 00:39:30	266.93	72.8	37.6	100.0	148.9	146.13	98.14
32	5713	CHARGING	04-10-25 00:39:31	04-10-25 00:56:12	16.69	37.6	39.2	100.0	6.77	6.57	97.04
32	5714	CHARGING	04-10-25 01:13:46	04-10-25 02:02:49	49.06	41.2	48.8	100.0	32.15	32.44	99.1
32	5715	CHARGING	04-10-25 02:23:40	04-10-25 02:24:03	0.38	50.8	50.8	100.0	0.0	0.5	nan
32	5716	CHARGING	04-10-25 02:32:16	04-10-25 02:33:20	1.06	50.8	50.8	100.0	0.0	0.45	nan
32	5718	CHARGING	04-10-25 02:33:30	04-10-25 04:22:07	108.62	51.6	66.4	100.0	62.6	62.71	99.82
32	5719	CHARGING	04-10-25 04:28:43	04-10-25 05:27:27	58.73	66.8	72.4	100.0	23.69	25.06	94.21
32	5720	DISCHARGING	04-10-25 05:27:27	04-10-25 06:14:32	47.08	72.4	63.6	100.0	37.22	39.7	93.35
32	5721	DISCHARGING	04-10-25 06:22:47	04-10-25 07:05:51	43.06	61.6	53.2	100.0	35.53	37.79	93.66
32	5722	DISCHARGING	04-10-25 07:19:01	04-10-25 07:44:27	25.43	50.0	46.4	100.0	15.23	16.27	93.13
32	5723	DISCHARGING	04-10-25 07:54:20	04-10-25 08:33:04	38.74	45.2	39.6	100.0	23.69	22.67	95.71
32	5724	DISCHARGING	04-10-25 08:42:25	04-10-25 08:51:59	9.57	39.6	39.6	100.0	0.0	0.27	nan
32	5725	CHARGING	04-10-25 08:52:00	04-10-25 09:16:19	24.31	39.6	49.6	100.0	42.3	44.5	94.8
32	5726	CHARGING	04-10-25 09:27:51	04-10-25 10:08:24	40.55	49.6	49.6	100.0	0.0	2.81	nan
32	5727	DISCHARGING	04-10-25 10:08:25	04-10-25 10:08:31	0.1	54.0	54.0	100.0	0.0	0.0	nan

Vehicle 32 – Session SoC Accuracy (Page 2/4)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
32	5728	CHARGING	04-10-25 10:08:32	04-10-25 10:43:52	35.34	54.0	78.8	100.0	104.9	111.39	93.82
32	5729	CHARGING	04-10-25 10:54:49	04-10-25 10:56:59	2.17	78.8	78.8	100.0	0.0	3.02	nan
32	5730	DISCHARGING	04-10-25 10:57:00	04-10-25 10:57:04	0.07	80.4	80.4	100.0	0.0	0.0	nan
32	5731	CHARGING	04-10-25 10:57:05	04-10-25 11:29:01	31.94	80.4	98.8	100.0	77.83	82.36	94.18
32	5732	DISCHARGING	04-10-25 11:29:02	04-10-25 11:45:36	16.57	98.8	97.2	100.0	6.77	5.16	76.18
32	5733	DISCHARGING	04-10-25 12:24:31	04-10-25 13:09:47	45.27	90.0	84.8	100.0	22.0	25.3	84.96
32	5734	DISCHARGING	04-10-25 13:25:41	04-10-25 14:47:50	82.14	84.8	74.4	100.0	43.99	40.15	91.26
32	5735	DISCHARGING	04-10-25 15:17:28	04-10-25 16:21:02	63.57	70.0	64.4	100.0	23.69	23.64	99.78
32	5736	CHARGING	04-10-25 16:21:04	04-10-25 16:47:40	26.61	64.4	68.8	100.0	18.61	19.87	93.25
32	5738	CHARGING	04-10-25 16:47:43	04-10-25 18:45:59	118.27	68.8	87.2	100.0	77.83	88.88	85.8
32	5739	CHARGING	04-10-25 19:00:31	04-10-25 19:46:16	45.75	90.0	96.0	100.0	25.38	35.39	60.56
32	5740	CHARGING	04-10-25 19:56:10	04-10-25 23:52:36	236.45	96.0	96.0	100.0	0.0	1.03	nan
32	5741	DISCHARGING	04-10-25 23:52:38	05-10-25 00:39:00	46.38	100.0	92.4	100.0	32.15	29.81	92.73
32	5742	DISCHARGING	05-10-25 00:57:54	05-10-25 00:58:27	0.54	88.4	88.4	100.0	0.0	1.32	nan
32	5743	DISCHARGING	05-10-25 01:15:14	05-10-25 01:40:54	25.67	87.6	83.6	100.0	16.92	19.3	85.96
32	5744	DISCHARGING	05-10-25 02:02:02	05-10-25 02:18:12	16.17	81.6	79.2	100.0	10.15	13.29	69.11
32	5745	DISCHARGING	05-10-25 02:27:21	05-10-25 04:06:13	98.86	78.4	65.2	100.0	55.84	53.18	95.23
32	5746	DISCHARGING	05-10-25 04:17:27	05-10-25 05:05:21	47.9	65.2	58.4	100.0	28.76	27.19	94.54
32	5747	DISCHARGING	05-10-25 05:23:35	05-10-25 06:03:28	39.87	54.0	48.8	100.0	22.0	21.63	98.34
32	5748	DISCHARGING	05-10-25 06:59:50	05-10-25 07:27:00	27.17	48.8	45.2	100.0	15.23	17.34	86.15
32	5749	CHARGING	05-10-25 07:27:02	05-10-25 07:36:54	9.87	45.2	47.2	100.0	8.46	10.55	75.31
32	5750	CHARGING	05-10-25 07:51:50	05-10-25 07:54:55	3.08	47.2	47.2	100.0	0.0	3.08	nan
32	5754	CHARGING	05-10-25 08:01:37	05-10-25 08:33:51	32.23	52.8	65.6	100.0	54.14	57.18	94.4
32	5755	CHARGING	05-10-25 08:43:34	05-10-25 09:19:50	36.26	69.6	79.2	100.0	40.61	43.75	92.25
32	5757	CHARGING	05-10-25 09:19:53	05-10-25 10:01:36	41.73	79.2	92.4	100.0	55.84	80.05	56.63
32	5758	CHARGING	05-10-25 10:16:26	05-10-25 10:59:56	43.5	92.4	92.4	100.0	0.0	2.5	nan
32	5759	DISCHARGING	05-10-25 10:59:58	05-10-25 11:30:35	30.63	100.0	96.8	100.0	13.54	8.11	59.9
32	5760	DISCHARGING	05-10-25 11:55:17	05-10-25 13:50:57	115.66	94.4	74.4	100.0	84.6	76.99	91.0
32	5761	DISCHARGING	05-10-25 14:05:30	05-10-25 14:12:49	7.31	72.4	71.2	100.0	5.08	5.62	89.26
32	5762	DISCHARGING	05-10-25 14:22:25	05-10-25 14:47:14	24.81	70.8	70.0	100.0	3.38	1.09	32.27

Vehicle 32 – Session SoC Accuracy (Page 3/4)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
32	5763	DISCHARGING	05-10-25 14:53:34	05-10-25 14:56:11	2.61	69.2	68.8	100.0	1.69	0.62	36.36
32	5764	DISCHARGING	05-10-25 15:20:02	05-10-25 16:59:38	99.6	65.6	63.6	100.0	8.46	8.76	96.46
32	5765	DISCHARGING	05-10-25 17:19:26	05-10-25 17:40:15	20.81	63.6	61.6	100.0	8.46	8.38	99.11
32	5766	DISCHARGING	05-10-25 17:55:01	05-10-25 18:15:53	20.86	60.4	57.6	100.0	11.84	10.33	87.22
32	5767	DISCHARGING	05-10-25 18:21:42	05-10-25 19:19:19	57.61	57.6	52.0	100.0	23.69	21.03	88.77
32	5768	DISCHARGING	05-10-25 19:24:57	05-10-25 21:21:31	116.57	50.0	37.2	100.0	54.14	51.29	94.72
32	5769	CHARGING	05-10-25 21:21:32	05-10-25 21:25:36	4.06	37.2	37.2	100.0	0.0	0.51	nan
32	5771	CHARGING	05-10-25 21:25:40	06-10-25 01:15:51	230.2	37.2	67.6	100.0	128.59	135.71	94.47
32	5773	CHARGING	06-10-25 01:15:55	06-10-25 04:25:57	190.04	67.6	86.4	100.0	79.52	98.82	75.74
32	5774	CHARGING	06-10-25 04:45:27	06-10-25 05:12:13	26.77	90.8	100.0	100.0	38.92	19.23	49.43
32	5777	DISCHARGING	06-10-25 05:14:45	06-10-25 05:17:08	2.38	100.0	99.6	100.0	1.69	0.06	3.4
32	5780	DISCHARGING	06-10-25 06:50:09	06-10-25 09:15:46	145.63	99.6	96.4	100.0	13.54	6.16	45.49
32	5781	DISCHARGING	06-10-25 09:55:49	06-10-25 10:52:04	56.25	96.4	87.6	100.0	37.22	39.51	93.86
32	5782	DISCHARGING	06-10-25 11:35:38	06-10-25 12:15:24	39.77	87.6	82.0	100.0	23.69	25.2	93.62
32	5783	DISCHARGING	06-10-25 12:23:42	06-10-25 13:41:42	78.0	80.8	72.4	100.0	35.53	39.1	89.95
32	5784	DISCHARGING	06-10-25 13:46:52	06-10-25 14:09:45	22.88	72.0	69.6	100.0	10.15	11.14	90.23
32	5785	DISCHARGING	06-10-25 14:16:22	06-10-25 15:09:49	53.44	69.2	62.8	100.0	27.07	25.11	92.76
32	5786	DISCHARGING	06-10-25 15:19:47	06-10-25 15:40:52	21.09	60.8	58.4	100.0	10.15	11.09	90.75
32	5787	CHARGING	06-10-25 15:40:53	06-10-25 17:28:48	107.9	58.4	78.0	100.0	82.91	90.16	91.25
32	5788	CHARGING	06-10-25 17:43:22	06-10-25 18:50:22	67.0	80.0	90.8	100.0	45.68	58.76	71.39
32	5789	CHARGING	06-10-25 18:56:41	06-10-25 19:26:12	29.51	92.0	100.0	100.0	33.84	25.04	73.99
32	5790	DISCHARGING	06-10-25 19:26:13	06-10-25 19:40:32	14.32	100.0	99.6	100.0	1.69	0.44	25.95
32	5792	DISCHARGING	06-10-25 21:07:05	06-10-25 21:25:42	18.61	99.6	97.2	100.0	10.15	9.29	91.53
32	5793	DISCHARGING	06-10-25 21:30:50	06-10-25 22:17:58	47.14	96.4	92.0	100.0	18.61	20.25	91.2
32	5794	DISCHARGING	06-10-25 22:29:35	07-10-25 00:54:27	144.87	90.4	74.4	100.0	67.68	68.14	99.32
32	5795	DISCHARGING	07-10-25 01:15:19	07-10-25 01:26:45	11.44	74.0	72.8	100.0	5.08	4.57	90.06
32	5796	DISCHARGING	07-10-25 01:44:45	07-10-25 02:43:24	58.66	71.2	66.0	100.0	22.0	23.97	91.02
32	5797	DISCHARGING	07-10-25 03:07:06	07-10-25 03:51:12	44.1	63.2	58.4	100.0	20.3	20.92	96.95
32	5798	DISCHARGING	07-10-25 04:01:09	07-10-25 04:40:19	39.16	57.2	52.0	100.0	22.0	19.91	90.53
32	5799	DISCHARGING	07-10-25 04:48:20	07-10-25 04:48:22	0.04	52.0	52.0	100.0	0.0	0.36	nan

Vehicle 32 — Session SoC Accuracy (Page 4/4)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
32	5800	CHARGING	07-10-25 04:48:23	07-10-25 04:50:17	1.9	51.6	52.0	100.0	1.69	0.88	52.25
32	5801	CHARGING	07-10-25 05:13:04	07-10-25 05:23:38	10.57	54.4	54.8	100.0	1.69	2.12	74.65
32	5802	DISCHARGING	07-10-25 05:23:39	07-10-25 05:31:34	7.92	54.8	54.8	100.0	0.0	0.41	nan
32	5803	CHARGING	07-10-25 05:31:36	07-10-25 07:32:20	120.74	54.8	64.8	100.0	42.3	43.37	97.48
32	5805	CHARGING	07-10-25 07:32:22	07-10-25 07:55:15	22.88	64.8	64.8	100.0	0.0	0.08	nan
32	5806	DISCHARGING	07-10-25 07:55:16	07-10-25 08:43:58	48.71	64.8	58.8	99.94	25.36	26.4	95.91
32	5807	DISCHARGING	07-10-25 08:50:36	07-10-25 09:41:47	51.18	58.0	50.0	99.6	33.7	34.7	97.06
32	5808	DISCHARGING	07-10-25 10:11:11	07-10-25 11:17:21	66.17	50.0	41.6	99.6	35.39	35.26	99.63
32	5809	DISCHARGING	07-10-25 11:30:14	07-10-25 13:30:49	120.58	38.4	33.2	99.6	21.91	17.83	81.39
32	5810	DISCHARGING	09-10-25 09:28:43	09-10-25 10:04:37	35.9	33.2	31.6	99.6	6.74	6.16	91.34
32	5811	DISCHARGING	30-10-25 13:32:01	30-10-25 13:38:33	6.54	31.6	31.2	99.6	1.68	0.04	2.42

Vehicle 33 – Session SoC Accuracy (Page 1/11)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
33	5812	CHARGING	02-10-25 06:55:55	02-10-25 08:26:11	90.26	60.4	100.0	100.0	167.51	170.58	98.17
33	5817	DISCHARGING	02-10-25 08:28:31	02-10-25 08:57:25	28.91	100.0	99.2	100.0	3.38	3.08	90.99
33	5818	DISCHARGING	02-10-25 09:15:52	02-10-25 10:02:35	46.71	99.2	98.4	100.0	3.38	5.51	37.2
33	5819	DISCHARGING	02-10-25 10:13:33	02-10-25 12:24:27	130.9	98.4	97.6	100.0	3.38	0.83	24.55
33	5820	DISCHARGING	02-10-25 18:58:42	02-10-25 19:01:05	2.38	97.6	97.6	100.0	0.0	3.83	nan
33	5821	DISCHARGING	03-10-25 03:34:05	03-10-25 03:51:48	17.71	97.6	97.2	100.0	1.69	10.72	-433.31
33	5822	DISCHARGING	03-10-25 05:43:13	03-10-25 05:47:50	4.62	97.2	97.2	100.0	0.0	0.07	nan
33	5824	DISCHARGING	03-10-25 06:28:31	03-10-25 09:10:13	161.71	97.2	92.4	100.0	20.3	12.7	62.57
33	5825	DISCHARGING	03-10-25 11:38:37	03-10-25 11:55:27	16.84	92.4	92.0	100.0	1.69	2.63	44.82
33	5826	DISCHARGING	03-10-25 12:24:18	03-10-25 12:28:41	4.39	92.0	92.0	100.0	0.0	0.21	nan
33	5827	DISCHARGING	03-10-25 12:39:17	03-10-25 13:21:41	42.4	92.0	87.2	100.0	20.3	21.3	95.1
33	5828	DISCHARGING	03-10-25 13:43:10	03-10-25 16:17:43	154.56	85.2	82.4	100.0	11.84	2.25	18.98
33	5830	DISCHARGING	04-10-25 03:59:17	04-10-25 04:14:44	15.44	82.0	82.0	100.0	0.0	1.59	nan
33	5831	CHARGING	04-10-25 04:14:45	04-10-25 05:22:04	67.31	82.0	100.0	100.0	76.14	73.54	96.59
33	5832	DISCHARGING	04-10-25 05:22:05	04-10-25 08:21:38	179.56	100.0	95.6	100.0	18.61	7.22	38.8
33	5833	DISCHARGING	04-10-25 08:34:18	04-10-25 09:38:47	64.48	94.4	90.4	100.0	16.92	17.83	94.62
33	5834	DISCHARGING	04-10-25 09:44:50	04-10-25 10:38:56	54.1	90.0	86.8	100.0	13.54	11.99	88.58
33	5835	DISCHARGING	04-10-25 10:59:33	04-10-25 12:15:48	76.26	86.8	76.4	100.0	43.99	36.84	83.74
33	5836	DISCHARGING	04-10-25 12:20:48	04-10-25 13:12:41	51.88	76.4	71.6	100.0	20.3	19.96	98.3
33	5837	DISCHARGING	04-10-25 13:18:44	04-10-25 13:26:24	7.68	72.0	71.6	100.0	1.69	0.17	9.88
33	5838	DISCHARGING	04-10-25 14:09:20	04-10-25 15:10:23	61.04	66.0	60.8	100.0	22.0	23.93	91.22
33	5839	DISCHARGING	04-10-25 15:15:24	04-10-25 15:23:07	7.7	60.4	60.4	100.0	0.0	1.4	nan
33	5840	CHARGING	04-10-25 15:23:08	04-10-25 15:45:27	22.32	60.4	68.8	100.0	35.53	36.1	98.39
33	5841	CHARGING	04-10-25 15:51:31	04-10-25 17:08:43	77.21	71.2	100.0	100.0	121.82	123.37	98.73
33	5843	DISCHARGING	04-10-25 17:45:19	04-10-25 17:47:42	2.39	100.0	99.6	100.0	1.69	1.02	60.31
33	5844	DISCHARGING	05-10-25 05:45:37	05-10-25 05:46:44	1.13	99.6	99.6	100.0	0.0	11.55	nan
33	5847	DISCHARGING	06-10-25 05:43:16	06-10-25 05:56:40	13.4	99.6	98.8	100.0	3.38	2.65	78.43
33	5849	DISCHARGING	07-10-25 10:40:39	07-10-25 10:46:08	5.48	98.4	98.4	100.0	0.0	0.04	nan
33	5850	DISCHARGING	08-10-25 19:53:59	08-10-25 20:00:24	6.42	98.4	98.4	100.0	0.0	1.71	nan
33	5851	CHARGING	08-10-25 20:02:30	08-10-25 20:09:01	6.51	98.4	100.0	100.0	6.77	8.53	73.96

Vehicle 33 – Session SoC Accuracy (Page 2/11)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
33	5854	DISCHARGING	08-10-25 20:37:59	08-10-25 23:00:42	142.72	100.0	80.0	100.0	84.6	83.76	99.01
33	5855	DISCHARGING	08-10-25 23:10:38	09-10-25 01:08:11	117.56	78.4	67.6	100.0	45.68	46.64	97.9
33	5857	DISCHARGING	09-10-25 01:24:13	09-10-25 03:16:28	112.25	67.6	66.4	100.0	5.08	2.07	40.84
33	5858	DISCHARGING	09-10-25 05:52:26	09-10-25 06:00:39	8.21	66.4	66.0	100.0	1.69	1.24	73.42
33	5859	DISCHARGING	09-10-25 06:10:00	09-10-25 07:10:28	60.47	65.6	62.4	100.0	13.54	11.58	85.53
33	5860	DISCHARGING	09-10-25 07:18:44	09-10-25 10:14:29	175.74	62.4	59.2	100.0	13.54	1.99	14.71
33	5861	DISCHARGING	09-10-25 10:23:50	09-10-25 10:26:46	2.93	58.4	58.4	100.0	0.0	0.34	nan
33	5862	DISCHARGING	10-10-25 05:00:17	10-10-25 05:20:47	20.49	58.4	57.6	100.0	3.38	3.73	89.81
33	5863	DISCHARGING	10-10-25 05:30:07	10-10-25 06:52:39	82.53	57.2	55.2	100.0	8.46	1.54	18.22
33	5864	DISCHARGING	10-10-25 07:00:53	10-10-25 08:06:17	65.39	54.8	53.6	100.0	5.08	1.15	22.65
33	5865	DISCHARGING	10-10-25 09:48:18	10-10-25 10:02:37	14.32	53.6	52.8	100.0	3.38	2.39	70.62
33	5866	DISCHARGING	10-10-25 10:12:31	10-10-25 12:31:57	139.43	52.4	50.4	100.0	8.46	2.48	29.34
33	5867	DISCHARGING	10-10-25 14:33:21	10-10-25 14:54:38	21.28	50.4	50.4	100.0	0.0	6.45	nan
33	5868	DISCHARGING	11-10-25 05:06:33	11-10-25 08:56:59	230.44	50.4	45.2	100.0	22.0	10.14	46.11
33	5869	DISCHARGING	11-10-25 10:57:17	11-10-25 11:15:21	18.07	45.2	44.8	100.0	1.69	2.09	76.64
33	5870	DISCHARGING	11-10-25 11:26:56	11-10-25 12:12:06	45.16	44.4	44.0	100.0	1.69	0.94	55.65
33	5872	DISCHARGING	12-10-25 08:45:53	12-10-25 10:11:27	85.58	44.0	41.6	100.0	10.15	5.59	55.03
33	5873	DISCHARGING	12-10-25 10:19:10	12-10-25 11:01:41	42.51	41.6	40.8	100.0	3.38	0.92	27.34
33	5874	DISCHARGING	12-10-25 11:14:54	12-10-25 11:46:44	31.84	40.8	40.4	100.0	1.69	0.5	29.67
33	5875	DISCHARGING	12-10-25 11:55:00	12-10-25 12:29:09	34.14	40.4	40.0	100.0	1.69	0.25	14.57
33	5876	DISCHARGING	12-10-25 14:43:33	12-10-25 15:21:20	37.79	40.0	40.0	100.0	0.0	0.17	nan
33	5879	DISCHARGING	13-10-25 08:39:40	13-10-25 09:10:15	30.59	40.0	38.8	100.0	5.08	5.69	87.83
33	5880	DISCHARGING	13-10-25 09:16:18	13-10-25 10:07:37	51.31	38.4	37.2	100.0	5.08	1.88	37.04
33	5881	DISCHARGING	13-10-25 10:13:40	13-10-25 13:52:28	218.8	37.2	34.0	100.0	13.54	4.19	30.94
33	5882	DISCHARGING	13-10-25 14:13:01	13-10-25 15:07:17	54.27	34.0	34.0	100.0	0.0	0.32	nan
33	5883	DISCHARGING	14-10-25 06:35:12	14-10-25 07:34:47	59.58	34.0	32.0	100.0	8.46	6.55	77.42
33	5884	DISCHARGING	14-10-25 07:59:18	14-10-25 08:53:57	54.65	32.0	30.0	100.0	8.46	5.54	65.48
33	5885	DISCHARGING	14-10-25 09:00:34	14-10-25 09:12:51	12.28	30.0	29.6	100.0	1.69	0.47	27.97
33	5886	DISCHARGING	14-10-25 09:23:52	14-10-25 09:46:44	22.87	29.2	28.8	100.0	1.69	0.16	9.2
33	5892	DISCHARGING	15-10-25 03:28:25	15-10-25 04:06:21	37.94	28.4	28.4	100.0	0.0	0.21	nan

Vehicle 33 – Session SoC Accuracy (Page 3/11)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
33	5893	CHARGING	15-10-25 04:06:23	15-10-25 04:12:53	6.51	28.4	28.4	100.0	0.0	0.73	nan
33	5895	CHARGING	15-10-25 04:12:55	15-10-25 06:45:55	152.99	28.4	88.8	100.0	255.49	280.44	90.24
33	5896	CHARGING	15-10-25 06:51:59	15-10-25 07:48:35	56.6	91.2	100.0	100.0	37.22	9.19	24.69
33	5897	DISCHARGING	15-10-25 08:53:06	15-10-25 09:13:06	20.0	100.0	99.6	100.0	1.69	0.24	13.95
33	5898	DISCHARGING	15-10-25 10:06:30	15-10-25 15:22:55	316.42	99.6	98.0	100.0	6.77	2.34	34.63
33	5899	DISCHARGING	15-10-25 15:32:51	15-10-25 19:48:08	255.29	98.0	96.8	100.0	5.08	1.47	29.01
33	5900	CHARGING	15-10-25 19:55:52	15-10-25 20:03:09	7.27	96.8	98.8	100.0	8.46	15.8	13.21
33	5901	DISCHARGING	15-10-25 20:03:09	15-10-25 20:07:58	4.81	98.8	98.8	100.0	0.0	0.81	nan
33	5903	DISCHARGING	15-10-25 20:45:37	15-10-25 21:51:07	65.5	98.8	96.8	100.0	8.46	5.83	68.91
33	5904	DISCHARGING	15-10-25 21:59:24	15-10-25 22:16:34	17.17	96.4	94.8	100.0	6.77	5.87	86.67
33	5905	DISCHARGING	15-10-25 22:36:24	15-10-25 23:34:47	58.38	92.8	88.4	100.0	18.61	18.67	99.67
33	5906	DISCHARGING	15-10-25 23:49:40	16-10-25 00:17:17	27.61	86.8	83.2	100.0	15.23	15.89	95.64
33	5907	DISCHARGING	16-10-25 00:25:34	16-10-25 00:34:45	9.2	82.4	80.4	100.0	8.46	8.72	96.92
33	5908	DISCHARGING	16-10-25 01:01:10	16-10-25 01:22:06	20.92	75.2	72.0	100.0	13.54	14.52	92.77
33	5909	DISCHARGING	16-10-25 01:45:13	16-10-25 02:08:15	23.02	67.6	64.4	100.0	13.54	15.35	86.58
33	5910	CHARGING	16-10-25 02:08:17	16-10-25 02:09:38	1.34	64.4	64.4	100.0	0.0	1.84	nan
33	5912	CHARGING	16-10-25 02:15:13	16-10-25 02:17:12	1.98	64.4	64.8	100.0	1.69	3.68	-17.59
33	5914	CHARGING	16-10-25 02:23:09	16-10-25 02:42:15	19.09	64.8	80.0	100.0	64.3	73.16	86.21
33	5916	CHARGING	16-10-25 02:52:51	16-10-25 03:00:21	7.5	80.0	84.8	100.0	20.3	26.99	67.07
33	5917	CHARGING	16-10-25 03:10:02	16-10-25 03:10:28	0.44	84.8	84.8	100.0	0.0	4.4	nan
33	5918	DISCHARGING	16-10-25 03:10:32	16-10-25 07:46:05	275.54	91.2	49.6	100.0	175.97	177.88	98.92
33	5919	DISCHARGING	16-10-25 07:55:27	16-10-25 08:04:27	9.0	49.6	48.8	100.0	3.38	1.64	48.45
33	5924	CHARGING	16-10-25 08:09:17	16-10-25 08:10:02	0.74	48.8	48.8	100.0	0.0	0.07	nan
33	5929	DISCHARGING	16-10-25 08:12:34	16-10-25 08:13:19	0.74	48.8	48.8	100.0	0.0	2.59	nan
33	5930	CHARGING	16-10-25 08:13:20	16-10-25 08:14:58	1.63	48.8	48.8	100.0	0.0	1.14	nan
33	5932	CHARGING	16-10-25 08:16:17	16-10-25 09:03:24	47.13	48.8	74.8	100.0	109.98	116.43	94.14
33	5933	DISCHARGING	16-10-25 09:03:25	16-10-25 09:05:22	1.94	74.8	74.8	100.0	0.0	0.03	nan
33	5934	CHARGING	16-10-25 09:05:32	16-10-25 09:18:39	13.11	74.8	82.0	100.0	30.46	37.08	78.25
33	5935	DISCHARGING	16-10-25 09:25:17	16-10-25 09:28:18	3.02	86.0	85.6	100.0	1.69	0.0	0.32
33	5936	CHARGING	16-10-25 09:28:19	16-10-25 09:32:50	4.52	85.6	88.0	100.0	10.15	10.35	98.04

Vehicle 33 – Session SoC Accuracy (Page 4/11)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
33	5937	DISCHARGING	16-10-25 09:49:19	16-10-25 10:11:00	21.68	100.0	99.6	100.0	1.69	0.76	45.06
33	5938	DISCHARGING	16-10-25 10:18:42	16-10-25 10:21:06	2.4	99.6	99.6	100.0	0.0	0.0	nan
33	5940	DISCHARGING	16-10-25 10:54:01	16-10-25 10:59:18	5.27	99.2	99.2	100.0	0.0	0.65	nan
33	5941	DISCHARGING	16-10-25 11:32:09	16-10-25 11:52:12	20.05	99.2	99.2	100.0	0.0	1.84	nan
33	5942	DISCHARGING	16-10-25 12:22:23	16-10-25 13:36:43	74.34	99.2	94.4	100.0	20.3	17.51	86.25
33	5943	DISCHARGING	16-10-25 13:53:15	16-10-25 14:25:25	32.17	93.6	92.4	100.0	5.08	4.37	86.11
33	5944	DISCHARGING	16-10-25 14:36:26	16-10-25 14:46:35	10.15	92.0	91.2	100.0	3.38	2.73	80.58
33	5945	DISCHARGING	16-10-25 14:54:52	16-10-25 16:34:43	99.85	90.4	84.8	100.0	23.69	16.03	67.66
33	5946	DISCHARGING	16-10-25 16:47:57	16-10-25 17:26:41	38.74	84.8	80.8	100.0	16.92	12.04	71.14
33	5947	DISCHARGING	16-10-25 17:49:15	16-10-25 18:00:36	11.36	79.6	77.6	100.0	8.46	8.28	97.84
33	5948	DISCHARGING	16-10-25 18:15:30	16-10-25 18:17:14	1.74	76.8	76.8	100.0	0.0	0.13	nan
33	5949	DISCHARGING	16-10-25 18:23:18	16-10-25 19:03:41	40.39	76.4	72.0	100.0	18.61	19.65	94.42
33	5950	CHARGING	16-10-25 19:03:41	16-10-25 19:09:14	5.54	72.0	73.6	100.0	6.77	8.12	79.95
33	5952	CHARGING	16-10-25 19:09:55	16-10-25 19:19:23	9.46	73.6	79.2	100.0	23.69	14.98	63.24
33	5953	CHARGING	16-10-25 19:25:27	16-10-25 19:43:20	17.88	80.0	91.2	100.0	47.38	67.23	58.1
33	5954	DISCHARGING	16-10-25 19:43:21	16-10-25 20:26:17	42.95	91.2	82.8	100.0	35.53	35.64	99.69
33	5955	DISCHARGING	16-10-25 20:34:34	16-10-25 22:00:58	86.4	82.0	66.0	100.0	67.68	65.95	97.45
33	5956	DISCHARGING	16-10-25 22:14:12	17-10-25 00:49:37	155.41	63.6	42.0	100.0	91.37	88.99	97.39
33	5957	DISCHARGING	17-10-25 01:07:48	17-10-25 01:09:16	1.46	40.8	40.8	100.0	0.0	0.24	nan
33	5959	DISCHARGING	17-10-25 04:00:45	17-10-25 04:03:19	2.57	40.0	40.0	100.0	0.0	0.13	nan
33	5960	CHARGING	17-10-25 04:24:55	17-10-25 04:42:26	17.51	40.0	54.4	100.0	60.91	55.07	90.42
33	5961	CHARGING	17-10-25 04:51:48	17-10-25 05:27:11	35.38	62.4	92.4	100.0	126.9	120.33	94.83
33	5963	CHARGING	17-10-25 05:55:02	17-10-25 06:00:33	5.52	92.4	100.0	100.0	32.15	4.77	14.83
33	5966	DISCHARGING	17-10-25 06:39:15	17-10-25 09:02:42	143.45	100.0	99.2	100.0	3.38	1.16	34.14
33	5967	DISCHARGING	17-10-25 09:13:43	17-10-25 11:04:39	110.94	98.0	90.0	100.0	33.84	32.97	97.43
33	5968	DISCHARGING	17-10-25 11:12:22	17-10-25 14:49:51	217.48	89.6	65.6	100.0	101.52	101.69	99.83
33	5969	DISCHARGING	17-10-25 14:57:34	17-10-25 16:07:53	70.32	64.4	52.8	100.0	49.07	48.21	98.24
33	5971	DISCHARGING	17-10-25 16:36:11	17-10-25 16:38:29	2.3	52.8	52.8	100.0	0.0	0.06	nan
33	5972	CHARGING	17-10-25 16:38:30	17-10-25 17:06:39	28.15	52.8	75.2	100.0	94.75	101.03	93.38
33	5974	CHARGING	17-10-25 17:09:12	17-10-25 17:11:06	1.9	75.2	75.6	100.0	1.69	2.2	70.11

Vehicle 33 – Session SoC Accuracy (Page 5/11)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
33	5976	CHARGING	17-10-25 17:11:42	17-10-25 17:25:24	13.69	75.6	82.0	100.0	27.07	48.77	19.87
33	5977	DISCHARGING	17-10-25 17:25:25	17-10-25 20:54:02	208.63	82.0	40.8	99.69	173.74	174.79	99.4
33	5978	CHARGING	17-10-25 20:54:04	17-10-25 21:48:45	54.7	40.8	86.0	99.6	190.43	225.05	81.82
33	5979	DISCHARGING	17-10-25 21:48:47	18-10-25 02:27:02	278.26	86.0	54.8	99.6	131.45	131.41	99.97
33	5980	CHARGING	18-10-25 02:28:12	18-10-25 02:43:17	15.07	54.8	66.0	99.6	47.19	50.64	92.68
33	5981	CHARGING	18-10-25 02:50:41	18-10-25 02:51:53	1.2	66.8	67.2	99.6	1.68	2.54	49.01
33	5982	DISCHARGING	18-10-25 03:05:54	18-10-25 03:06:16	0.37	67.6	67.6	99.6	0.0	0.73	nan
33	5984	CHARGING	18-10-25 03:13:08	18-10-25 03:40:04	26.94	67.6	85.2	99.6	74.15	68.36	92.19
33	5985	DISCHARGING	18-10-25 03:40:09	18-10-25 06:15:46	155.61	85.2	58.8	99.6	111.22	114.26	97.27
33	5986	DISCHARGING	18-10-25 06:24:06	18-10-25 07:52:12	88.1	57.6	52.8	99.6	20.22	17.76	87.83
33	5987	DISCHARGING	18-10-25 08:00:30	18-10-25 09:51:40	111.16	52.4	46.8	99.6	23.59	23.66	99.71
33	5988	DISCHARGING	18-10-25 10:09:45	18-10-25 11:23:13	73.46	46.8	46.4	99.6	1.68	4.89	-90.34
33	5989	DISCHARGING	18-10-25 11:29:39	18-10-25 11:37:00	7.36	46.4	46.0	99.6	1.68	0.0	0.0
33	5990	DISCHARGING	18-10-25 11:46:24	18-10-25 11:48:31	2.12	46.0	46.0	99.6	0.0	0.06	nan
33	5991	CHARGING	18-10-25 12:03:23	18-10-25 15:06:48	183.41	46.0	100.0	99.6	227.51	216.06	94.97
33	5994	DISCHARGING	18-10-25 20:52:19	18-10-25 21:36:55	44.6	100.0	98.8	99.6	5.06	4.16	82.24
33	5995	DISCHARGING	18-10-25 21:46:52	18-10-25 23:27:48	100.94	98.0	90.0	99.6	33.7	29.89	88.67
33	5996	DISCHARGING	18-10-25 23:45:45	19-10-25 00:31:11	45.43	87.6	80.4	99.6	30.33	28.7	94.6
33	5997	DISCHARGING	19-10-25 00:37:33	19-10-25 02:08:30	90.95	79.2	61.6	99.6	74.15	77.78	95.11
33	5998	DISCHARGING	19-10-25 02:13:47	19-10-25 02:15:58	2.18	61.6	61.6	99.6	0.0	0.13	nan
33	5999	CHARGING	19-10-25 02:16:17	19-10-25 02:27:22	11.08	61.6	69.6	99.6	33.7	35.33	95.19
33	6000	DISCHARGING	19-10-25 03:06:06	19-10-25 06:58:39	232.55	86.0	46.8	99.6	165.15	164.68	99.71
33	6001	DISCHARGING	19-10-25 07:19:08	19-10-25 07:24:53	5.76	46.8	46.8	99.6	0.0	8.79	nan
33	6004	CHARGING	19-10-25 07:41:04	19-10-25 07:54:54	13.83	46.8	54.8	99.6	33.7	28.04	83.18
33	6005	CHARGING	19-10-25 08:32:55	19-10-25 09:20:11	47.26	74.0	100.0	99.6	109.54	96.54	88.13
33	6007	DISCHARGING	19-10-25 09:34:55	19-10-25 09:36:08	1.22	100.0	100.0	99.6	0.0	0.02	nan
33	6008	DISCHARGING	19-10-25 10:13:47	19-10-25 10:29:42	15.91	99.6	99.6	99.6	0.0	0.82	nan
33	6009	DISCHARGING	19-10-25 17:39:06	19-10-25 17:42:41	3.58	99.6	99.2	99.6	1.68	3.77	-23.71
33	6010	DISCHARGING	19-10-25 20:09:29	19-10-25 20:13:42	4.21	99.2	99.2	99.6	0.0	0.05	nan
33	6011	DISCHARGING	19-10-25 21:25:32	19-10-25 21:39:12	13.67	99.2	99.2	99.6	0.0	1.31	nan

Vehicle 33 – Session SoC Accuracy (Page 6/11)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
33	6012	DISCHARGING	20-10-25 04:23:38	20-10-25 04:30:29	6.85	99.2	98.8	99.6	1.68	4.67	-77.27
33	6013	DISCHARGING	20-10-25 04:39:26	20-10-25 04:42:25	2.97	98.8	98.8	99.6	0.0	2.57	nan
33	6014	DISCHARGING	20-10-25 06:55:17	20-10-25 06:57:08	1.85	98.8	98.8	99.6	0.0	0.03	nan
33	6015	DISCHARGING	20-10-25 08:22:03	20-10-25 09:42:13	80.18	98.8	94.4	99.6	18.54	16.94	91.38
33	6016	DISCHARGING	20-10-25 09:53:33	20-10-25 11:51:10	117.61	94.0	83.2	99.6	45.5	45.15	99.23
33	6019	CHARGING	20-10-25 11:52:43	20-10-25 12:12:13	19.49	83.2	90.8	99.6	32.02	60.42	11.32
33	6020	DISCHARGING	20-10-25 12:12:14	20-10-25 12:15:51	3.63	90.8	90.8	99.6	0.0	0.44	nan
33	6021	DISCHARGING	20-10-25 12:30:48	20-10-25 12:46:17	15.48	89.6	87.2	99.6	10.11	8.35	82.62
33	6022	DISCHARGING	20-10-25 12:51:17	20-10-25 15:49:11	177.9	86.4	61.2	99.6	106.17	111.85	94.65
33	6023	DISCHARGING	20-10-25 15:54:12	20-10-25 16:33:05	38.88	60.4	54.0	99.6	26.96	31.2	84.28
33	6024	DISCHARGING	20-10-25 16:41:09	20-10-25 16:43:00	1.84	52.8	52.8	99.6	0.0	0.14	nan
33	6025	DISCHARGING	20-10-25 16:52:45	20-10-25 17:38:48	46.06	52.0	48.0	99.6	16.85	17.17	98.1
33	6026	DISCHARGING	20-10-25 17:45:34	20-10-25 18:07:21	21.79	47.2	45.6	99.6	6.74	9.56	58.26
33	6027	DISCHARGING	20-10-25 18:16:03	20-10-25 18:39:57	23.91	45.6	44.8	99.6	3.37	2.4	71.12
33	6028	CHARGING	20-10-25 18:39:59	20-10-25 20:33:55	113.93	44.8	100.0	99.6	232.56	224.61	96.58
33	6030	CHARGING	20-10-25 20:33:57	20-10-25 20:34:21	0.4	100.0	100.0	99.6	0.0	0.49	nan
33	6031	CHARGING	21-10-25 00:59:41	21-10-25 00:59:45	0.07	100.0	100.0	99.6	0.0	5.97	nan
33	6032	DISCHARGING	21-10-25 00:59:46	21-10-25 01:03:54	4.14	100.0	99.6	99.6	1.68	0.18	10.73
33	6037	DISCHARGING	21-10-25 09:47:10	21-10-25 09:48:54	1.74	99.6	99.6	99.6	0.0	0.02	nan
33	6039	DISCHARGING	22-10-25 04:27:59	22-10-25 04:30:25	2.45	99.6	99.6	99.6	0.0	0.66	nan
33	6040	DISCHARGING	22-10-25 05:22:22	22-10-25 05:22:42	0.33	99.6	99.6	99.6	0.0	1.9	nan
33	6042	DISCHARGING	22-10-25 07:44:04	22-10-25 08:00:53	16.83	99.6	98.8	99.6	3.37	1.82	53.88
33	6043	DISCHARGING	22-10-25 09:30:14	22-10-25 09:50:58	20.73	98.8	97.6	99.6	5.06	3.76	74.29
33	6048	DISCHARGING	22-10-25 16:34:13	22-10-25 20:25:17	231.07	97.6	74.8	99.6	96.06	94.11	97.97
33	6049	DISCHARGING	22-10-25 20:35:13	22-10-25 20:57:09	21.93	72.8	68.8	99.6	16.85	18.73	88.84
33	6050	DISCHARGING	22-10-25 21:10:26	22-10-25 21:49:37	39.19	66.0	59.6	99.6	26.96	30.8	85.76
33	6053	CHARGING	22-10-25 21:52:26	22-10-25 21:59:02	6.6	59.6	63.6	99.6	16.85	17.67	95.14
33	6054	CHARGING	22-10-25 22:06:58	22-10-25 22:50:32	43.57	63.6	92.0	99.6	119.65	145.64	78.28
33	6055	DISCHARGING	22-10-25 22:50:34	23-10-25 02:56:39	246.08	92.0	56.4	99.6	149.99	146.93	97.96
33	6057	DISCHARGING	23-10-25 04:12:24	23-10-25 04:17:21	4.95	56.4	56.4	99.6	0.0	0.05	nan

Vehicle 33 – Session SoC Accuracy (Page 7/11)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
33	6060	CHARGING	23-10-25 04:21:15	23-10-25 05:53:51	92.6	56.4	100.0	99.6	183.69	181.33	98.72
33	6061	DISCHARGING	23-10-25 05:53:51	23-10-25 06:04:06	10.24	100.0	99.6	99.6	1.68	0.86	51.24
33	6062	DISCHARGING	23-10-25 06:15:06	23-10-25 06:19:31	4.43	99.6	99.6	99.6	0.0	0.0	nan
33	6064	DISCHARGING	23-10-25 08:11:46	23-10-25 09:23:10	71.41	99.6	95.6	99.6	16.85	13.33	79.11
33	6065	DISCHARGING	23-10-25 09:28:11	23-10-25 09:37:24	9.21	95.6	95.2	99.6	1.68	1.68	99.4
33	6066	DISCHARGING	23-10-25 09:42:24	23-10-25 13:03:53	201.48	94.8	81.2	99.6	57.3	52.28	91.24
33	6067	CHARGING	23-10-25 13:08:38	23-10-25 13:27:12	18.56	81.2	91.2	99.6	42.13	64.04	47.99
33	6068	DISCHARGING	23-10-25 13:27:13	23-10-25 14:46:29	79.27	91.2	78.8	99.6	52.24	48.83	93.46
33	6069	DISCHARGING	23-10-25 14:59:47	23-10-25 16:16:29	76.69	76.4	64.8	99.6	48.87	50.2	97.29
33	6070	DISCHARGING	23-10-25 16:24:54	23-10-25 19:19:36	174.69	63.2	42.4	99.6	87.63	88.86	98.6
33	6071	CHARGING	23-10-25 19:23:36	23-10-25 19:56:25	32.82	42.4	56.4	99.6	58.98	62.4	94.21
33	6074	CHARGING	23-10-25 20:14:37	23-10-25 21:09:11	54.57	56.4	80.0	99.6	99.43	104.49	94.91
33	6076	CHARGING	23-10-25 21:13:40	23-10-25 21:36:28	22.8	80.0	84.8	99.6	20.22	39.0	7.17
33	6078	CHARGING	23-10-25 21:49:12	23-10-25 22:16:46	27.57	84.8	100.0	99.6	64.04	32.09	50.11
33	6080	DISCHARGING	24-10-25 01:04:01	24-10-25 01:06:45	2.74	100.0	99.6	99.6	1.68	0.11	6.59
33	6083	DISCHARGING	24-10-25 05:48:54	24-10-25 05:51:31	2.62	99.6	99.6	99.6	0.0	0.04	nan
33	6084	DISCHARGING	24-10-25 08:04:55	24-10-25 08:07:16	2.34	99.6	99.6	99.6	0.0	0.73	nan
33	6085	DISCHARGING	24-10-25 08:37:13	24-10-25 08:37:28	0.26	99.6	99.6	99.6	0.0	11.15	nan
33	6086	DISCHARGING	24-10-25 08:46:11	24-10-25 09:11:21	25.17	99.6	97.2	99.6	10.11	9.67	95.62
33	6087	DISCHARGING	24-10-25 09:19:55	24-10-25 11:13:55	113.99	96.4	89.6	99.6	28.65	26.13	91.22
33	6088	DISCHARGING	24-10-25 11:18:57	24-10-25 13:39:38	140.68	89.6	76.8	99.6	53.93	57.37	93.61
33	6089	DISCHARGING	24-10-25 13:46:01	24-10-25 15:28:14	102.22	76.0	56.8	99.6	80.89	82.84	97.59
33	6090	CHARGING	24-10-25 15:28:15	24-10-25 15:32:26	4.19	56.8	58.4	99.6	6.74	6.98	96.51
33	6091	DISCHARGING	24-10-25 15:32:27	24-10-25 15:35:26	2.98	58.4	58.4	99.6	0.0	0.05	nan
33	6092	CHARGING	24-10-25 15:35:27	24-10-25 16:18:49	43.37	58.4	86.4	99.6	117.97	140.17	81.17
33	6093	DISCHARGING	24-10-25 16:18:50	24-10-25 16:57:59	39.15	86.4	80.0	99.6	26.96	27.84	96.74
33	6094	DISCHARGING	24-10-25 17:03:01	24-10-25 20:09:49	186.81	78.8	49.6	99.6	123.02	122.57	99.63
33	6095	CHARGING	24-10-25 20:12:26	24-10-25 21:31:29	79.04	49.6	100.0	99.6	212.34	214.55	98.96
33	6098	DISCHARGING	24-10-25 21:44:00	25-10-25 03:02:20	318.34	100.0	76.0	99.6	101.11	93.9	92.87
33	6099	CHARGING	25-10-25 03:02:21	25-10-25 03:06:11	3.83	76.0	77.6	99.6	6.74	6.61	98.12

Vehicle 33 – Session SoC Accuracy (Page 8/11)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
33	6100	DISCHARGING	25-10-25 03:06:14	25-10-25 03:09:45	3.51	77.6	77.6	99.6	0.0	0.58	nan
33	6103	CHARGING	25-10-25 03:10:13	25-10-25 03:10:42	0.48	77.6	77.6	99.6	0.0	1.49	nan
33	6105	CHARGING	25-10-25 03:10:44	25-10-25 03:21:57	11.21	77.6	80.8	99.6	13.48	33.09	-45.45
33	6106	DISCHARGING	25-10-25 03:21:58	25-10-25 03:43:41	21.71	80.8	79.2	99.6	6.74	6.82	98.9
33	6107	DISCHARGING	25-10-25 03:50:01	25-10-25 07:12:31	202.49	78.4	49.6	99.6	121.34	126.85	95.45
33	6108	DISCHARGING	25-10-25 07:32:08	25-10-25 09:34:57	122.82	48.0	40.8	99.6	30.33	21.12	69.61
33	6109	CHARGING	25-10-25 10:12:51	25-10-25 11:14:43	61.87	40.8	88.8	99.6	202.23	230.52	86.01
33	6111	CHARGING	25-10-25 11:14:46	25-10-25 11:24:48	10.03	88.8	88.8	99.6	0.0	1.58	nan
33	6112	DISCHARGING	25-10-25 11:24:49	25-10-25 11:24:50	0.01	88.8	88.8	99.6	0.0	0.0	nan
33	6113	CHARGING	25-10-25 11:24:52	25-10-25 11:49:08	24.28	88.8	100.0	99.6	47.19	16.24	34.41
33	6122	DISCHARGING	25-10-25 14:18:44	25-10-25 14:20:45	2.01	100.0	99.6	99.6	1.68	0.72	42.91
33	6123	DISCHARGING	25-10-25 20:56:38	25-10-25 20:56:58	0.33	99.6	99.6	99.6	0.0	0.0	nan
33	6125	DISCHARGING	26-10-25 05:00:31	26-10-25 06:15:34	75.05	99.6	93.6	99.6	25.28	25.4	99.52
33	6126	DISCHARGING	26-10-25 06:28:50	26-10-25 06:51:05	22.24	92.8	91.2	99.6	6.74	6.31	93.65
33	6127	DISCHARGING	26-10-25 06:57:28	26-10-25 07:08:00	10.53	90.8	88.4	99.6	10.11	10.52	95.93
33	6128	DISCHARGING	26-10-25 07:27:35	26-10-25 08:00:31	32.94	86.8	83.2	99.6	15.17	15.92	95.02
33	6129	DISCHARGING	26-10-25 08:12:29	26-10-25 08:21:36	9.11	82.0	80.8	99.6	5.06	6.02	80.94
33	6130	DISCHARGING	26-10-25 08:36:34	26-10-25 08:56:54	20.34	78.0	74.0	99.6	16.85	15.97	94.78
33	6131	DISCHARGING	26-10-25 09:03:36	26-10-25 09:39:33	35.95	72.8	72.4	99.6	1.68	3.41	-2.08
33	6132	CHARGING	26-10-25 09:39:34	26-10-25 10:29:18	49.73	72.4	84.8	99.6	52.24	64.87	75.83
33	6135	DISCHARGING	26-10-25 10:29:49	26-10-25 11:36:43	66.9	84.8	78.0	99.6	28.65	25.86	90.26
33	6136	DISCHARGING	26-10-25 11:54:18	26-10-25 12:18:16	23.97	78.0	75.6	99.6	10.11	9.07	89.67
33	6137	DISCHARGING	26-10-25 12:23:18	26-10-25 13:20:36	57.3	74.8	68.0	99.6	28.65	29.22	98.01
33	6138	DISCHARGING	26-10-25 13:29:21	26-10-25 14:56:51	87.49	67.6	60.0	99.6	32.02	28.08	87.7
33	6139	DISCHARGING	26-10-25 15:10:31	26-10-25 15:15:07	4.61	59.2	58.8	99.6	1.68	2.54	49.15
33	6140	DISCHARGING	26-10-25 15:30:03	26-10-25 15:40:17	10.23	58.0	57.2	99.6	3.37	2.9	86.18
33	6141	DISCHARGING	26-10-25 15:51:54	26-10-25 16:37:55	46.01	56.4	54.0	99.6	10.11	9.58	94.78
33	6142	CHARGING	26-10-25 16:37:57	26-10-25 19:04:41	146.73	54.0	100.0	99.6	193.8	201.68	95.93
33	6143	DISCHARGING	26-10-25 19:04:42	26-10-25 19:27:23	22.68	100.0	99.6	99.6	1.68	0.12	7.31
33	6145	DISCHARGING	26-10-25 20:30:22	26-10-25 20:35:36	5.23	99.6	99.6	99.6	0.0	0.02	nan

Vehicle 33 – Session SoC Accuracy (Page 9/11)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
33	6146	DISCHARGING	26-10-25 21:07:56	27-10-25 02:08:11	300.25	99.6	61.6	99.6	160.1	161.69	99.01
33	6147	CHARGING	27-10-25 02:11:11	27-10-25 03:03:05	51.9	61.6	90.8	99.6	123.02	161.85	68.44
33	6148	DISCHARGING	27-10-25 03:03:09	27-10-25 04:53:08	109.99	90.8	64.8	99.6	109.54	114.29	95.66
33	6149	DISCHARGING	27-10-25 05:04:45	27-10-25 06:14:12	69.46	61.2	52.4	99.6	37.08	36.2	97.64
33	6150	DISCHARGING	27-10-25 06:20:51	27-10-25 07:31:42	70.86	51.6	49.2	99.6	10.11	9.64	95.38
33	6152	CHARGING	27-10-25 07:45:04	27-10-25 07:53:09	8.08	49.2	49.2	99.6	0.0	0.22	nan
33	6154	CHARGING	27-10-25 07:53:11	27-10-25 07:59:40	6.47	48.8	48.8	99.6	0.0	0.27	nan
33	6156	CHARGING	27-10-25 07:59:43	27-10-25 08:02:44	3.02	48.8	48.8	99.6	0.0	2.33	nan
33	6157	DISCHARGING	27-10-25 08:02:44	27-10-25 08:10:15	7.51	48.8	48.8	99.6	0.0	0.06	nan
33	6158	CHARGING	27-10-25 08:10:17	27-10-25 08:10:51	0.58	48.8	48.8	99.6	0.0	1.55	nan
33	6159	DISCHARGING	27-10-25 08:10:53	27-10-25 08:10:53	0.01	48.8	48.8	99.6	0.0	0.0	nan
33	6160	CHARGING	27-10-25 08:10:56	27-10-25 08:11:25	0.5	48.8	48.8	99.6	0.0	0.87	nan
33	6162	CHARGING	27-10-25 08:11:28	27-10-25 09:30:48	79.34	48.8	100.0	99.6	215.71	186.34	86.39
33	6163	DISCHARGING	27-10-25 09:35:24	27-10-25 09:55:22	19.96	100.0	98.8	99.6	5.06	4.06	80.36
33	6164	DISCHARGING	27-10-25 10:03:41	27-10-25 10:21:56	18.25	98.0	96.8	99.6	5.06	2.92	57.75
33	6165	DISCHARGING	27-10-25 10:28:35	27-10-25 10:35:32	6.96	96.8	96.4	99.6	1.68	1.02	60.29
33	6166	DISCHARGING	27-10-25 10:45:30	27-10-25 11:05:15	19.76	95.6	95.2	99.6	1.68	1.92	85.95
33	6167	DISCHARGING	27-10-25 11:16:51	27-10-25 11:24:44	7.88	94.8	94.4	99.6	1.68	0.76	45.42
33	6168	DISCHARGING	27-10-25 11:36:07	27-10-25 13:14:41	98.58	92.8	85.6	99.6	30.33	31.26	96.96
33	6169	CHARGING	27-10-25 13:14:44	27-10-25 13:25:53	11.16	85.6	90.0	99.6	18.54	19.51	94.76
33	6170	DISCHARGING	27-10-25 13:25:54	27-10-25 13:55:42	29.81	90.0	86.0	99.6	16.85	16.14	95.75
33	6171	DISCHARGING	27-10-25 14:05:39	27-10-25 14:10:28	4.8	84.0	83.2	99.6	3.37	4.01	81.14
33	6172	DISCHARGING	27-10-25 14:17:07	27-10-25 19:18:38	301.52	82.4	48.0	99.6	144.93	151.75	95.29
33	6173	CHARGING	27-10-25 19:18:39	27-10-25 21:25:47	127.14	48.0	100.0	99.6	219.08	234.22	93.09
33	6176	DISCHARGING	27-10-25 22:06:15	27-10-25 22:13:46	7.51	100.0	99.6	99.6	1.68	0.0	0.31
33	6177	DISCHARGING	27-10-25 22:21:27	27-10-25 22:58:24	36.95	99.6	97.2	99.6	10.11	9.13	90.33
33	6178	DISCHARGING	27-10-25 23:11:40	28-10-25 04:05:45	294.09	96.4	60.8	99.6	149.99	148.35	98.91
33	6179	DISCHARGING	28-10-25 04:14:07	28-10-25 04:26:52	12.75	59.6	57.6	99.6	8.43	7.39	87.67
33	6180	CHARGING	28-10-25 04:26:53	28-10-25 05:07:43	40.83	57.6	86.0	99.6	119.65	156.5	69.2
33	6183	DISCHARGING	28-10-25 05:07:57	28-10-25 08:18:31	190.58	86.0	50.8	99.6	148.3	152.16	97.4

Vehicle 33 – Session SoC Accuracy (Page 10/11)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
33	6184	DISCHARGING	28-10-25 08:30:34	28-10-25 09:51:21	80.78	50.4	48.0	99.6	10.11	7.97	78.81
33	6185	CHARGING	28-10-25 09:52:13	28-10-25 11:22:36	90.38	48.0	100.0	99.6	219.08	204.25	93.23
33	6187	DISCHARGING	28-10-25 11:51:33	28-10-25 11:57:07	5.57	100.0	99.6	99.6	1.68	1.11	65.83
33	6190	DISCHARGING	28-10-25 20:53:52	28-10-25 23:46:21	172.49	99.6	88.8	99.6	45.5	42.92	94.34
33	6191	DISCHARGING	28-10-25 23:56:19	29-10-25 01:47:49	111.49	88.0	74.4	99.6	57.3	56.33	98.31
33	6192	CHARGING	29-10-25 01:50:33	29-10-25 02:11:20	20.79	74.4	84.8	99.6	43.82	67.31	46.37
33	6193	DISCHARGING	29-10-25 02:11:21	29-10-25 03:16:18	64.95	84.8	75.2	99.6	40.45	41.44	97.54
33	6194	DISCHARGING	29-10-25 03:25:59	29-10-25 06:37:10	191.17	74.0	54.4	99.6	82.58	82.25	99.6
33	6195	DISCHARGING	29-10-25 06:42:13	29-10-25 06:53:18	11.08	54.0	53.2	99.6	3.37	5.53	35.93
33	6196	DISCHARGING	29-10-25 07:11:33	29-10-25 07:25:04	13.52	51.6	50.8	99.6	3.37	3.03	89.78
33	6197	CHARGING	29-10-25 07:25:05	29-10-25 07:25:52	0.78	50.8	50.8	99.6	0.0	0.07	nan
33	6199	CHARGING	29-10-25 07:25:55	29-10-25 09:18:12	112.29	50.8	100.0	99.6	207.28	198.87	95.94
33	6204	DISCHARGING	29-10-25 13:33:31	29-10-25 14:36:51	63.33	100.0	99.6	99.6	1.68	0.84	49.77
33	6205	DISCHARGING	29-10-25 15:57:12	29-10-25 16:28:41	31.48	99.6	96.8	99.6	11.8	7.51	63.69
33	6206	DISCHARGING	29-10-25 16:35:21	29-10-25 22:01:29	326.14	96.4	61.2	99.6	148.3	149.87	98.94
33	6207	CHARGING	29-10-25 22:01:32	29-10-25 22:09:04	7.54	61.2	63.6	99.6	10.11	10.54	95.75
33	6210	DISCHARGING	29-10-25 22:13:24	29-10-25 22:16:39	3.26	63.6	63.6	99.6	0.0	0.16	nan
33	6211	DISCHARGING	29-10-25 23:03:22	30-10-25 01:30:02	146.67	87.2	53.6	99.6	141.56	141.6	99.97
33	6212	DISCHARGING	30-10-25 01:42:08	30-10-25 02:46:45	64.61	52.4	50.0	99.6	10.11	5.91	58.44
33	6217	CHARGING	30-10-25 03:02:00	30-10-25 03:03:23	1.37	50.0	50.0	99.6	0.0	1.83	nan
33	6219	CHARGING	30-10-25 03:03:25	30-10-25 03:07:17	3.87	50.0	50.4	99.6	1.68	0.56	33.32
33	6220	DISCHARGING	30-10-25 03:07:19	30-10-25 03:07:59	0.68	50.4	50.4	99.6	0.0	3.49	nan
33	6222	DISCHARGING	30-10-25 03:08:25	30-10-25 03:11:59	3.56	50.4	50.0	99.6	1.68	0.13	7.92
33	6223	CHARGING	30-10-25 03:12:00	30-10-25 04:21:22	69.36	50.0	64.0	99.6	58.98	62.94	93.29
33	6227	CHARGING	30-10-25 04:22:10	30-10-25 04:30:51	8.69	64.0	65.2	99.6	5.06	6.09	79.58
33	6228	DISCHARGING	30-10-25 04:30:54	30-10-25 04:31:11	0.27	65.2	65.2	99.6	0.0	1.47	nan
33	6229	DISCHARGING	30-10-25 04:40:03	30-10-25 04:51:06	11.05	65.2	65.2	99.6	0.0	4.49	nan
33	6230	DISCHARGING	30-10-25 04:57:25	30-10-25 05:14:50	17.4	65.2	64.8	99.6	1.68	0.26	15.46
33	6231	CHARGING	30-10-25 05:19:51	30-10-25 06:20:23	60.55	64.8	100.0	99.6	148.3	128.54	86.67
33	6233	DISCHARGING	30-10-25 08:46:33	30-10-25 08:56:46	10.22	99.6	99.6	99.6	0.0	0.0	nan

Vehicle 33 – Session SoC Accuracy (Page 11/11)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
33	6234	DISCHARGING	30-10-25 09:10:02	30-10-25 10:38:29	88.44	98.8	93.2	99.6	23.59	22.08	93.61
33	6235	DISCHARGING	30-10-25 10:51:59	30-10-25 12:48:58	116.98	92.8	84.8	99.6	33.7	30.42	90.25
33	6236	CHARGING	30-10-25 12:51:15	30-10-25 13:16:53	25.63	84.8	100.0	99.6	64.04	68.05	93.73
33	6237	DISCHARGING	30-10-25 13:16:54	30-10-25 13:58:17	41.38	100.0	93.2	99.6	28.65	26.92	93.97
33	6238	DISCHARGING	30-10-25 14:22:46	30-10-25 15:11:35	48.81	90.8	84.0	99.6	28.65	30.89	92.18
33	6239	DISCHARGING	30-10-25 15:19:52	30-10-25 19:22:14	242.36	82.4	54.0	99.6	119.65	124.07	96.31
33	6241	DISCHARGING	30-10-25 19:26:42	30-10-25 19:28:11	1.48	54.0	54.0	99.6	0.0	0.07	nan
33	6242	CHARGING	30-10-25 19:28:33	30-10-25 20:33:05	64.54	54.0	67.6	99.6	57.3	61.04	93.46
33	6243	CHARGING	30-10-25 20:49:23	30-10-25 21:31:28	42.07	71.2	80.0	99.6	37.08	40.61	90.46
33	6244	DISCHARGING	30-10-25 21:31:29	30-10-25 21:36:07	4.62	80.0	79.6	99.6	1.68	1.62	96.33
33	6245	CHARGING	30-10-25 21:36:10	30-10-25 22:06:32	30.36	79.6	100.0	99.6	85.95	92.68	92.17
33	6246	DISCHARGING	30-10-25 22:06:32	30-10-25 22:06:33	0.01	100.0	100.0	99.6	0.0	0.0	nan
33	6248	DISCHARGING	30-10-25 22:11:33	30-10-25 23:38:23	86.85	100.0	95.2	99.6	20.22	15.75	77.9
33	6249	DISCHARGING	30-10-25 23:45:05	31-10-25 03:18:21	213.26	94.8	64.4	99.6	128.08	131.7	97.17
33	6250	CHARGING	31-10-25 03:19:19	31-10-25 04:01:21	42.02	64.4	84.8	99.6	85.95	117.18	63.66
33	6251	DISCHARGING	31-10-25 04:01:24	31-10-25 04:51:03	49.64	84.8	75.2	99.6	40.45	40.97	98.69
33	6252	DISCHARGING	31-10-25 05:05:59	31-10-25 07:26:50	140.84	71.6	48.8	99.6	96.06	97.56	98.44
33	6253	DISCHARGING	31-10-25 07:46:43	31-10-25 08:17:06	30.39	48.0	47.2	99.6	3.37	1.21	35.81
33	6254	DISCHARGING	31-10-25 08:28:24	31-10-25 08:49:14	20.84	47.2	46.8	99.6	1.68	3.05	19.1
33	6259	CHARGING	31-10-25 08:52:34	31-10-25 08:53:24	0.84	46.8	46.8	99.6	0.0	2.35	nan
33	6262	CHARGING	31-10-25 09:18:57	31-10-25 09:22:58	4.02	46.8	46.8	99.6	0.0	6.95	nan
33	6263	DISCHARGING	31-10-25 09:22:59	31-10-25 09:26:59	3.99	46.8	46.8	99.6	0.0	0.04	nan
33	6264	CHARGING	31-10-25 09:27:44	31-10-25 11:01:59	94.25	46.8	100.0	99.6	224.14	213.93	95.45
33	6265	DISCHARGING	31-10-25 11:23:11	31-10-25 12:01:40	38.48	100.0	99.2	99.6	3.37	0.32	9.5
33	6266	DISCHARGING	31-10-25 13:29:29	31-10-25 13:33:57	4.46	99.2	99.2	99.6	0.0	3.36	nan
33	6267	DISCHARGING	31-10-25 13:45:09	31-10-25 18:16:48	271.65	99.2	90.4	99.6	37.08	34.06	91.87
33	6268	DISCHARGING	31-10-25 18:23:29	31-10-25 18:29:58	6.48	90.0	89.2	99.6	3.37	3.85	85.85

Vehicle 42 – Session SoC Accuracy (Page 1/4)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
42	6269	DISCHARGING	03-10-25 03:14:43	03-10-25 03:33:42	18.98	99.2	98.8	100.0	1.69	0.55	32.43
42	6270	DISCHARGING	03-10-25 04:38:14	03-10-25 05:53:26	75.2	98.8	97.6	100.0	5.08	1.03	20.24
42	6272	DISCHARGING	03-10-25 06:23:54	03-10-25 07:31:20	67.43	97.6	96.8	100.0	3.38	0.36	10.56
42	6273	DISCHARGING	03-10-25 07:52:11	03-10-25 08:52:51	60.67	96.8	95.6	100.0	5.08	3.85	75.83
42	6274	DISCHARGING	03-10-25 09:03:50	03-10-25 10:25:49	81.98	95.2	93.2	100.0	8.46	4.09	48.35
42	6275	DISCHARGING	03-10-25 10:42:18	03-10-25 11:07:47	25.48	90.8	88.8	100.0	8.46	9.19	91.37
42	6276	DISCHARGING	03-10-25 11:48:23	03-10-25 13:24:38	96.24	88.8	87.6	100.0	5.08	0.1	1.91
42	6277	DISCHARGING	03-10-25 13:47:42	03-10-25 15:09:52	82.17	87.6	86.0	100.0	6.77	1.57	23.23
42	6278	CHARGING	03-10-25 15:09:53	03-10-25 15:10:34	0.68	86.0	86.0	100.0	0.0	0.0	nan
42	6280	CHARGING	03-10-25 15:10:36	03-10-25 15:51:55	41.32	86.0	100.0	100.0	59.22	50.08	84.57
42	6281	DISCHARGING	03-10-25 15:51:55	03-10-25 16:11:19	19.4	100.0	99.6	100.0	1.69	0.0	0.0
42	6282	DISCHARGING	03-10-25 16:32:11	03-10-25 16:57:32	25.36	99.6	98.0	100.0	6.77	5.78	85.43
42	6283	DISCHARGING	03-10-25 17:16:45	03-10-25 17:41:04	24.33	95.6	91.6	100.0	16.92	15.11	89.31
42	6284	DISCHARGING	03-10-25 17:52:03	03-10-25 18:21:38	29.59	90.8	87.6	100.0	13.54	14.22	94.91
42	6285	DISCHARGING	03-10-25 18:36:28	03-10-25 18:56:32	20.05	87.2	84.0	100.0	13.54	14.66	91.73
42	6286	DISCHARGING	03-10-25 19:49:17	03-10-25 19:50:45	1.46	77.6	77.6	100.0	0.0	1.32	nan
42	6287	DISCHARGING	03-10-25 20:12:12	03-10-25 21:40:20	88.13	73.2	64.4	100.0	37.22	40.03	92.47
42	6288	DISCHARGING	03-10-25 22:49:02	03-10-25 23:22:08	33.1	50.0	46.0	100.0	16.92	16.34	96.54
42	6289	DISCHARGING	03-10-25 23:32:02	03-10-25 23:34:23	2.35	44.8	44.4	99.6	1.68	2.27	65.18
42	6290	DISCHARGING	04-10-25 00:00:46	04-10-25 00:24:27	23.67	40.0	37.2	99.6	11.8	9.72	82.4
42	6293	CHARGING	04-10-25 00:25:53	04-10-25 00:35:00	9.12	37.2	38.0	99.6	3.37	2.44	72.44
42	6294	DISCHARGING	04-10-25 00:35:01	04-10-25 00:36:15	1.24	38.0	38.0	99.6	0.0	1.34	nan
42	6295	CHARGING	04-10-25 00:36:15	04-10-25 00:56:24	20.14	38.0	39.6	99.6	6.74	6.53	96.92
42	6296	CHARGING	04-10-25 01:12:20	04-10-25 01:36:00	23.67	42.0	45.6	99.6	15.17	16.71	89.85
42	6297	CHARGING	04-10-25 02:19:55	04-10-25 02:42:24	22.48	52.8	56.4	99.6	15.17	14.92	98.39
42	6298	CHARGING	04-10-25 02:48:26	04-10-25 02:58:04	9.63	56.8	57.6	99.6	3.37	3.6	93.04
42	6299	CHARGING	04-10-25 03:13:59	04-10-25 03:15:52	1.89	58.8	58.8	99.6	0.0	0.85	nan
42	6300	CHARGING	04-10-25 03:26:50	04-10-25 03:28:02	1.2	59.2	59.2	99.6	0.0	1.65	nan
42	6301	DISCHARGING	04-10-25 03:28:03	04-10-25 03:28:12	0.15	59.2	59.2	99.6	0.0	0.0	nan
42	6302	CHARGING	04-10-25 03:28:12	04-10-25 04:10:33	42.34	59.2	65.6	99.6	26.96	25.86	95.91

Vehicle 42 – Session SoC Accuracy (Page 2/4)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
42	6304	CHARGING	04-10-25 04:10:38	04-10-25 04:25:04	14.44	65.6	66.8	99.6	5.06	5.79	85.43
42	6305	CHARGING	04-10-25 04:48:05	04-10-25 05:24:35	36.49	70.8	76.0	99.6	21.91	23.61	92.22
42	6306	DISCHARGING	04-10-25 05:24:35	04-10-25 05:49:59	25.39	76.0	71.2	99.6	20.22	21.8	92.2
42	6307	DISCHARGING	04-10-25 06:15:46	04-10-25 07:09:23	53.62	66.4	55.2	99.6	47.19	48.09	98.09
42	6308	DISCHARGING	04-10-25 07:40:25	04-10-25 07:49:02	8.62	49.6	48.4	99.6	5.06	4.33	85.7
42	6309	DISCHARGING	04-10-25 08:17:05	04-10-25 08:25:15	8.18	44.4	43.2	99.6	5.06	5.34	94.28
42	6310	DISCHARGING	04-10-25 08:40:07	04-10-25 08:50:03	9.94	43.2	41.6	99.6	6.74	3.98	59.0
42	6311	CHARGING	04-10-25 08:50:05	04-10-25 09:14:54	24.82	41.6	55.2	99.6	57.3	60.18	94.97
42	6313	CHARGING	04-10-25 09:14:56	04-10-25 10:43:34	88.62	55.2	91.2	99.6	151.67	164.59	91.48
42	6314	CHARGING	04-10-25 10:56:44	04-10-25 11:27:14	30.5	91.2	100.0	99.6	37.08	20.16	54.37
42	6315	DISCHARGING	04-10-25 11:27:15	04-10-25 12:04:02	36.78	100.0	94.0	99.6	25.28	24.56	97.16
42	6316	DISCHARGING	04-10-25 12:12:50	04-10-25 14:42:07	149.28	92.8	76.0	99.6	70.78	74.69	94.48
42	6317	DISCHARGING	04-10-25 14:50:07	04-10-25 15:07:13	17.11	74.0	70.8	99.6	13.48	15.12	87.84
42	6318	DISCHARGING	04-10-25 15:25:23	04-10-25 16:05:34	40.19	70.4	65.2	99.6	21.91	23.77	91.48
42	6319	CHARGING	04-10-25 16:05:35	04-10-25 16:07:26	1.85	65.2	65.2	99.6	0.0	0.94	nan
42	6320	CHARGING	04-10-25 16:28:53	04-10-25 19:12:15	163.37	68.4	90.8	99.6	94.37	111.0	82.38
42	6321	DISCHARGING	04-10-25 19:12:16	04-10-25 19:15:06	2.83	91.2	91.2	99.6	0.0	0.14	nan
42	6322	CHARGING	04-10-25 19:15:07	04-10-25 21:48:26	153.33	91.2	100.0	99.6	37.08	33.55	90.48
42	6324	DISCHARGING	04-10-25 23:58:16	05-10-25 00:56:56	58.67	100.0	92.8	99.6	30.33	27.91	92.0
42	6325	DISCHARGING	05-10-25 01:21:22	05-10-25 01:43:54	22.54	87.6	82.8	99.6	20.22	21.32	94.57
42	6326	DISCHARGING	05-10-25 01:49:11	05-10-25 01:56:43	7.53	82.8	82.0	99.6	3.37	5.31	42.46
42	6327	DISCHARGING	05-10-25 02:13:26	05-10-25 02:17:56	4.5	79.6	79.2	99.6	1.68	5.19	-107.9
42	6328	DISCHARGING	05-10-25 02:27:13	05-10-25 02:30:07	2.9	78.0	77.6	99.6	1.68	3.38	-0.86
42	6329	DISCHARGING	05-10-25 02:53:13	05-10-25 03:07:44	14.51	73.2	70.4	99.6	11.8	13.88	82.35
42	6330	DISCHARGING	05-10-25 03:22:35	05-10-25 05:02:25	99.83	68.4	59.2	99.6	38.76	37.3	96.23
42	6331	DISCHARGING	05-10-25 05:14:05	05-10-25 05:22:23	8.29	56.0	54.0	99.6	8.43	10.39	76.74
42	6332	DISCHARGING	05-10-25 05:45:10	05-10-25 05:54:15	9.08	49.2	48.8	99.6	1.68	0.56	33.28
42	6333	CHARGING	05-10-25 05:54:16	05-10-25 09:51:06	236.84	48.8	79.6	99.6	129.76	134.66	96.23
42	6335	CHARGING	05-10-25 09:52:31	05-10-25 10:39:51	47.33	79.6	87.6	99.6	33.7	44.5	67.98
42	6336	CHARGING	05-10-25 10:46:44	05-10-25 10:50:46	4.04	88.8	89.6	99.6	3.37	4.89	54.85

Vehicle 42 – Session SoC Accuracy (Page 3/4)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
42	6337	DISCHARGING	05-10-25 10:50:47	05-10-25 12:50:34	119.78	89.6	74.4	99.6	64.04	64.71	98.95
42	6338	DISCHARGING	05-10-25 12:56:16	05-10-25 13:32:56	36.67	73.6	64.8	99.6	37.08	35.68	96.23
42	6339	DISCHARGING	05-10-25 13:40:51	05-10-25 14:06:49	25.96	62.8	56.4	99.6	26.96	28.83	93.09
42	6340	DISCHARGING	05-10-25 14:18:58	05-10-25 15:22:30	63.53	55.2	50.8	99.6	18.54	20.4	89.98
42	6341	CHARGING	05-10-25 15:22:31	05-10-25 16:27:48	65.29	50.8	60.4	99.6	40.45	41.53	97.33
42	6342	CHARGING	05-10-25 16:37:26	05-10-25 16:40:02	2.61	62.0	62.4	99.6	1.68	2.25	66.24
42	6343	DISCHARGING	05-10-25 16:40:03	05-10-25 16:59:57	19.89	62.4	60.8	99.6	6.74	6.66	98.73
42	6344	DISCHARGING	05-10-25 17:19:55	05-10-25 17:23:34	3.66	60.8	60.4	99.6	1.68	2.85	31.13
42	6345	DISCHARGING	05-10-25 17:36:48	05-10-25 17:40:18	3.5	59.2	58.8	99.6	1.68	2.42	56.3
42	6346	DISCHARGING	05-10-25 17:52:31	05-10-25 18:10:48	18.28	57.2	55.2	99.6	8.43	8.78	95.74
42	6347	DISCHARGING	05-10-25 18:22:59	05-10-25 19:03:49	40.84	54.0	50.4	99.6	15.17	17.66	83.57
42	6348	DISCHARGING	05-10-25 19:18:40	05-10-25 19:19:03	0.39	49.2	49.2	99.6	0.0	2.09	nan
42	6349	DISCHARGING	05-10-25 20:01:40	05-10-25 21:41:44	100.06	40.0	32.8	99.6	30.33	29.12	96.01
42	6356	DISCHARGING	06-10-25 02:49:30	06-10-25 02:55:41	6.19	30.4	30.4	99.6	0.0	0.12	nan
42	6357	DISCHARGING	06-10-25 03:10:15	06-10-25 05:22:52	132.62	30.0	28.4	99.6	6.74	0.88	13.07
42	6358	CHARGING	06-10-25 05:22:53	06-10-25 07:15:01	112.14	28.4	57.2	99.6	121.34	125.84	96.29
42	6359	CHARGING	06-10-25 07:26:17	06-10-25 08:01:32	35.26	60.4	69.6	99.6	38.76	40.51	95.49
42	6370	DISCHARGING	06-10-25 08:23:59	06-10-25 08:29:03	5.06	69.6	69.6	99.6	0.0	0.41	nan
42	6371	CHARGING	06-10-25 08:29:04	06-10-25 09:50:53	81.81	69.6	90.0	99.6	85.95	111.52	70.25
42	6374	DISCHARGING	06-10-25 09:51:09	06-10-25 09:56:54	5.75	90.0	89.6	99.6	1.68	0.56	32.97
42	6375	DISCHARGING	06-10-25 10:06:01	06-10-25 10:49:03	43.04	88.8	82.4	99.6	26.96	30.63	86.41
42	6376	DISCHARGING	06-10-25 11:34:42	06-10-25 12:00:31	25.82	82.4	78.4	99.6	16.85	16.76	99.48
42	6377	DISCHARGING	06-10-25 12:10:08	06-10-25 14:59:03	168.92	77.2	57.6	99.6	82.58	79.29	96.02
42	6378	CHARGING	06-10-25 14:59:04	06-10-25 17:49:58	170.9	57.6	82.0	99.6	102.8	108.99	93.98
42	6380	CHARGING	06-10-25 17:51:18	06-10-25 17:59:34	8.26	82.0	82.8	99.6	3.37	2.23	66.06
42	6382	CHARGING	06-10-25 18:03:10	06-10-25 18:45:13	42.05	82.8	86.0	99.6	13.48	14.75	90.57
42	6383	DISCHARGING	06-10-25 19:00:06	06-10-25 19:37:36	37.5	84.4	78.8	99.6	23.59	23.0	97.51
42	6384	CHARGING	06-10-25 19:37:37	06-10-25 20:25:10	47.54	78.8	85.6	99.6	28.65	40.42	58.91
42	6385	CHARGING	06-10-25 20:31:52	06-10-25 21:00:12	28.33	87.2	100.0	99.6	53.93	23.3	43.21
42	6386	DISCHARGING	06-10-25 21:00:13	06-10-25 21:42:29	42.27	100.0	95.6	99.6	18.54	17.85	96.3

Vehicle 42 — Session SoC Accuracy (Page 4/4)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
42	6387	DISCHARGING	06-10-25 21:55:33	06-10-25 23:29:12	93.66	94.0	84.8	99.6	38.76	39.64	97.73
42	6388	DISCHARGING	06-10-25 23:52:18	07-10-25 00:58:57	66.64	84.8	76.0	99.6	37.08	35.25	95.08
42	6389	DISCHARGING	07-10-25 01:17:12	07-10-25 02:42:23	85.18	75.6	66.4	99.6	38.76	39.36	98.45
42	6390	DISCHARGING	07-10-25 03:30:24	07-10-25 03:35:54	5.5	60.4	59.6	99.6	3.37	4.25	73.96
42	6391	DISCHARGING	07-10-25 03:40:59	07-10-25 05:06:38	85.66	58.8	48.0	99.6	45.5	44.6	98.01
42	6392	CHARGING	07-10-25 05:19:33	07-10-25 07:58:53	159.34	47.6	59.6	99.6	50.56	53.51	94.15
42	6393	DISCHARGING	07-10-25 07:58:54	07-10-25 08:34:12	35.3	59.6	55.2	99.6	18.54	16.73	90.24
42	6394	DISCHARGING	07-10-25 08:42:28	07-10-25 09:32:43	50.26	54.0	47.2	99.6	28.65	25.05	87.45
42	6395	DISCHARGING	07-10-25 10:08:50	07-10-25 10:19:21	10.52	47.2	46.0	99.6	5.06	4.29	84.92
42	6396	DISCHARGING	07-10-25 10:35:50	07-10-25 11:05:13	29.38	43.2	37.6	99.6	23.59	23.12	98.0
42	6397	DISCHARGING	07-10-25 11:53:11	07-10-25 13:22:22	89.19	30.0	26.8	99.6	13.48	10.39	77.05
42	6398	DISCHARGING	07-10-25 13:30:34	07-10-25 13:30:54	0.34	26.8	26.8	99.6	0.0	11.52	nan
42	6399	DISCHARGING	07-10-25 13:55:49	07-10-25 14:13:43	17.9	26.8	26.8	99.6	0.0	0.83	nan
42	6400	DISCHARGING	09-10-25 03:35:32	09-10-25 05:13:49	98.27	26.8	25.2	99.6	6.74	2.52	37.35
42	6401	DISCHARGING	09-10-25 05:20:26	09-10-25 06:02:01	41.59	25.2	24.0	99.6	5.06	0.79	15.6
42	6402	DISCHARGING	09-10-25 06:21:32	09-10-25 07:00:49	39.28	23.6	22.8	99.6	3.37	0.79	23.51
42	6403	DISCHARGING	09-10-25 07:13:59	09-10-25 08:06:55	52.92	22.8	21.6	99.6	5.06	0.98	19.35
42	6404	DISCHARGING	09-10-25 08:18:27	09-10-25 08:40:37	22.16	21.2	20.8	99.6	1.68	0.32	19.2
42	6406	DISCHARGING	09-10-25 09:52:38	09-10-25 10:17:27	24.82	20.4	20.4	99.6	0.0	0.85	nan
42	6407	DISCHARGING	09-10-25 10:27:19	09-10-25 11:43:26	76.11	19.6	17.6	99.6	8.43	6.57	77.95
42	6408	DISCHARGING	09-10-25 11:48:31	09-10-25 11:59:11	10.66	17.6	17.6	99.6	0.0	7.41	nan
42	6409	DISCHARGING	15-10-25 06:39:02	15-10-25 06:45:40	6.63	17.6	17.2	99.6	1.68	2.8	33.86
42	6410	DISCHARGING	19-10-25 13:14:44	19-10-25 13:16:33	1.82	17.2	17.2	99.6	0.0	4.16	nan

Vehicle 46 – Session SoC Accuracy (Page 1/2)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
46	6416	DISCHARGING	25-10-25 07:01:57	25-10-25 09:28:34	146.62	52.0	50.8	100.0	5.08	0.2	3.94
46	6418	DISCHARGING	25-10-25 11:12:13	25-10-25 13:50:29	158.26	50.8	48.0	100.0	11.84	3.34	28.17
46	6419	DISCHARGING	27-10-25 04:24:36	27-10-25 08:29:31	244.92	48.0	43.6	100.0	18.61	4.3	23.13
46	6420	CHARGING	27-10-25 08:29:33	27-10-25 11:10:03	160.5	43.6	100.0	100.0	238.57	209.6	87.85
46	6422	DISCHARGING	27-10-25 11:19:52	27-10-25 11:31:45	11.88	100.0	99.6	100.0	1.69	0.44	26.08
46	6423	DISCHARGING	28-10-25 04:37:14	28-10-25 05:58:03	80.81	99.6	97.6	100.0	8.46	6.23	73.68
46	6424	DISCHARGING	28-10-25 06:11:16	28-10-25 07:18:20	67.05	97.6	96.8	100.0	3.38	0.06	1.69
46	6427	DISCHARGING	28-10-25 12:30:25	28-10-25 13:34:49	64.39	96.0	96.0	100.0	0.0	0.06	nan
46	6430	DISCHARGING	28-10-25 15:51:46	28-10-25 16:32:09	40.39	96.0	92.0	100.0	16.92	16.95	99.82
46	6431	DISCHARGING	28-10-25 16:48:07	28-10-25 16:49:09	1.04	91.2	90.8	100.0	1.69	3.64	-14.96
46	6432	DISCHARGING	28-10-25 16:57:25	28-10-25 17:34:58	37.55	89.6	87.2	100.0	10.15	10.52	96.37
46	6433	DISCHARGING	28-10-25 17:43:16	28-10-25 18:06:27	23.19	86.0	83.2	100.0	11.84	12.18	97.19
46	6434	DISCHARGING	28-10-25 18:19:07	28-10-25 20:06:58	107.84	80.8	67.2	100.0	57.53	60.44	94.95
46	6435	DISCHARGING	28-10-25 20:14:41	28-10-25 21:48:53	94.21	65.6	54.8	100.0	45.68	47.1	96.9
46	6437	DISCHARGING	29-10-25 00:58:47	29-10-25 01:00:53	2.11	54.8	54.8	100.0	0.0	0.05	nan
46	6438	DISCHARGING	29-10-25 01:14:41	29-10-25 01:17:07	2.44	54.8	54.8	100.0	0.0	0.16	nan
46	6439	CHARGING	29-10-25 01:18:41	29-10-25 02:34:17	75.61	54.8	87.6	100.0	138.74	168.53	78.53
46	6440	DISCHARGING	29-10-25 02:34:18	29-10-25 02:34:34	0.28	87.6	87.6	100.0	0.0	1.25	nan
46	6441	CHARGING	29-10-25 02:40:49	29-10-25 02:44:47	3.97	87.6	90.0	100.0	10.15	11.42	87.54
46	6442	CHARGING	29-10-25 02:57:27	29-10-25 02:59:46	2.32	97.6	100.0	100.0	10.15	2.55	25.1
46	6444	DISCHARGING	29-10-25 04:55:51	29-10-25 04:56:15	0.39	100.0	100.0	100.0	0.0	0.0	nan
46	6445	DISCHARGING	29-10-25 05:42:43	29-10-25 05:53:15	10.53	100.0	99.6	100.0	1.69	0.09	5.5
46	6446	DISCHARGING	29-10-25 07:49:35	29-10-25 10:18:07	148.54	99.6	96.0	100.0	15.23	0.08	0.54
46	6448	DISCHARGING	30-10-25 14:20:15	30-10-25 14:28:24	8.14	96.0	95.6	100.0	1.69	0.23	13.6
46	6451	DISCHARGING	30-10-25 19:15:24	30-10-25 20:54:05	98.69	95.6	86.0	100.0	40.61	40.63	99.94
46	6452	DISCHARGING	30-10-25 21:04:29	30-10-25 21:09:41	5.2	86.0	84.8	100.0	5.08	4.14	81.46
46	6453	DISCHARGING	30-10-25 21:20:42	30-10-25 21:52:50	32.13	83.2	78.4	100.0	20.3	19.71	97.06
46	6454	DISCHARGING	30-10-25 22:05:29	30-10-25 23:55:31	110.03	76.0	65.2	100.0	45.68	45.68	99.98
46	6455	DISCHARGING	31-10-25 00:04:53	31-10-25 00:39:47	34.9	64.8	63.6	100.0	5.08	0.32	6.23
46	6456	DISCHARGING	31-10-25 01:35:08	31-10-25 01:40:50	5.71	63.6	63.6	100.0	0.0	0.2	nan

Vehicle 46 — Session SoC Accuracy (Page 2/2)

vehicle_id	session_id	mode	start_time	end_time	duration_min	soc_start	soc_end	soh_avg	energy_soc_kwh	energy_measured_kwh	accuracy_percent
46	6457	CHARGING	31-10-25 01:40:52	31-10-25 02:37:22	56.5	63.6	100.0	100.0	153.97	159.46	96.44
46	6458	DISCHARGING	31-10-25 02:37:23	31-10-25 02:39:13	1.84	100.0	99.6	100.0	1.69	0.45	26.36
46	6459	DISCHARGING	31-10-25 03:37:13	31-10-25 03:41:09	3.93	99.6	99.6	100.0	0.0	0.67	nan
46	6460	DISCHARGING	31-10-25 05:18:16	31-10-25 05:21:06	2.84	99.6	99.6	100.0	0.0	0.34	nan
46	6461	DISCHARGING	31-10-25 06:34:54	31-10-25 10:09:24	214.51	99.6	88.8	100.0	45.68	38.78	84.89
46	6462	DISCHARGING	31-10-25 10:16:01	31-10-25 10:32:28	16.44	88.4	88.0	100.0	1.69	12.46	-536.42
46	6463	CHARGING	31-10-25 10:32:29	31-10-25 10:53:30	21.01	88.0	100.0	100.0	50.76	48.93	96.39
46	6464	DISCHARGING	31-10-25 13:06:14	31-10-25 13:09:03	2.82	100.0	99.6	100.0	1.69	0.16	9.68