



AVILOO BATTERY DIAGNOSTICS for EVs & PHEVs



connect to detect.





500,000+
battery tests



96%
vehicle coverage



Founded in
2018



80+
employees



95%
export quote



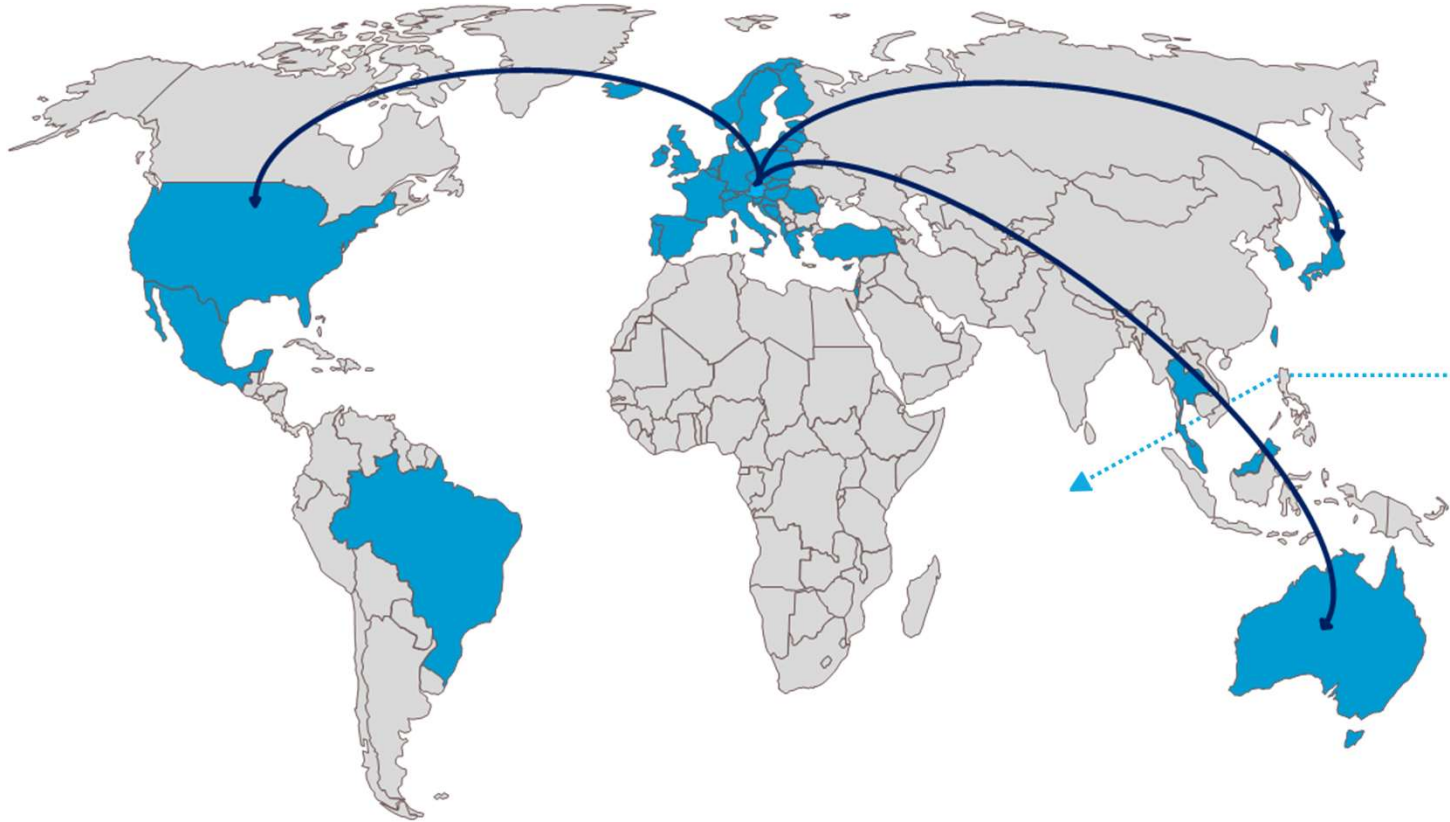
widest known
provider of
INDEPENDENT
battery diagnose

Global market and
INDUSTRY STANDARD

Partner for
PROFIT MAXIMISATION
for used EVs

SAFETY for
customers and dealers

AVILOO IS THE GLOBAL INDUSTRY STANDARD –
WITH WORLDWIDE MARKET COVERAGE



Worldwide
Presence
ΑΪΪΪΪ ΨΩΨΩΨΩ
ΓΡΩΩΩΩ Ϊ Ϊ Ϊ Ϊ
Ϊ Ϊ Ϊ

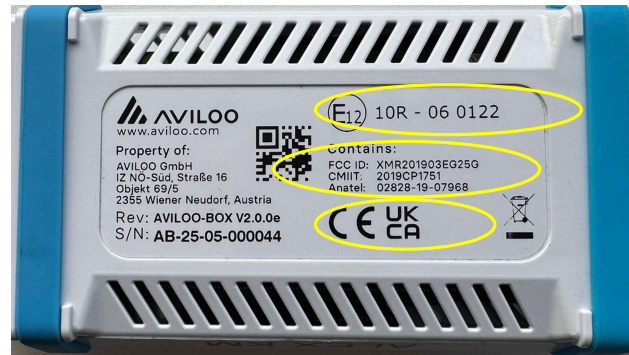


High Performance

- ISO 9001 certified test provider
- EMC certified HW
- ECE-R10 certified HW
- TÜV certified Tests
- Developed and produced in Austria
- Soon EN 27001 certified

Accredited regulation:

EN 301 489-1 V2.2.3; EN 301 489-17 V3.3.1;
EN 301 489-52 V1.2.1: EN IEC 62311:2020
ECE Regulation No. 10 Supplement 1 to the 06 Amend.2
47 CFR Part 15 Subpart B (eCFR 22.01.2025)
ANSI C63 4-2014 · ANSI C63 4a-2017
FCC: 47 CFR Part 22, 24, 27 (eCFR 17.02.2025 edition)
EN 300 328 V2.2.2; EN 301 908-1 V15.2.1
EN18031-1 -2



Cheap Hardware
(orderplattform: Temu,
Alibaba, ...)



VS.

LIVE DEMO ON OMODA

1. Why is it important that the battery SoH check is independent?
2. How does an independent diagnostic differ from a simple read out?
3. Is a better market price achievable with an independent certificate and how much is the additional margin?
4. What can be the financial impact for a dealer, if they accept a BEV with a defective battery as a trade in?

BMS SOH 100% VS. INDEPENDENT: 61%

INDEPENDENT
BATTERY
CERTIFICATE

CERTIFICATE NUMBER: 656DED39-72E5-401B-8852-7CBD455A2E32

AVILOO
BATTERY DIAGNOSTICS

BRAND: Kia
MODEL: EV6 - 77.4 kWh

MIILEAGE: 10.554 km
VIN: KNAC481AFP0154653
DATE AND TIME:
09.05.2025, 12:59:28

EXECUTED BY: AVILOO

STATE OF HEALTH (SOH)

! ENERGY - kWh | 806kWh

WLTp RANGE - km | 520km

BENCHMARKING

How does your vehicle compare to comparable vehicles?

below average average above average

BATTERY CHECKS

Battery Management System (BMS) - warning detected, more details on the 2nd page

Battery Sensor

Battery Measurements - safety risk detected, more details on the 2nd page

Battery Cell Voltages

Vehicle Communication

QR CODE

SCAN FOR DETAILS

EVALUATION

STATUS: SAFETY RISK! - POTENTIAL SAFETY HAZARD

During the detailed battery diagnosis with the AVILOO FLASH Test, safety concerning anomalies were detected that require immediate inspection. Please refer to the second page of the QR code for further details.

Dr. Marcus Berger, CEO

For assistance, please contact AVILOO Customer Management.

ENERGY

	Gross	Net (Nominal)	Usable
Current:			
New:	80.0kWh	77.4kWh	73.4kWh

RANGE

	WLTp	Typical
Current:		
New:	424-528km	359km

EXECUTION PROTOCOL

AVILOO Box connected. 12:59:24

FLASH Test started. ✓

Vehicle detected. ✓

Starting data acquisition. ✓

Finished data acquisition. ✓

Analyzing data. ✓

Analysis completed. ✓

MEASUREMENTS

	Min	Max	Delta	Status
Battery Temperature	22°C	24°C	2°C	✓
Cell Voltage	3.840V	4.140V	300mV	!
Pack Voltage	795.5V			
Average Current	-0.5A			

CELL VOLTAGES DIAGRAM

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1-20	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140
21-40	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140
41-60	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140
61-80	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140
81-100	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140
101-120	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140
121-140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140
141-160	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140
161-180	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140
181-200	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140	4.140

MIN 3.840 3.877 3.905 3.952 3.990 4.037 4.084 4.130 4.140 MAX

AVERAGE

It has been determined that there is a discrepancy between the highest and lowest charged cells, as illustrated in the cell voltage table above. This indicates an issue with battery balancing. Please take your vehicle to a workshop or contact AVILOO Customer Management for further assistance.

AVILOO
BATTERY DIAGNOSTICS

314 km**

61%*

BATTERIEZERTIFIKAT

Teststart: 02.05.2025

Durchgeführt von: AVILOO GmbH

61%*
314 km**

Fahrzeuginformationen

Marke: Kia

Modell: EV6 RWD - 77.4 kWh

Baujahr: 2023

FIN: KNAC481AFP0154653

Tatsächlich nutzbare Energie (100% - 0): 44.62 kWh

Nutzbare Energie Neuzustand**: 73.4 kWh

Verbleibende Reichweite (WLTp)**: 306 km - 321 km

Elektrische Reichweite Neuzustand(WLTp)**: 504 km - 528 km

Messdaten:

	Start	Ende
Ladezustand	100 %	10 %
Batterietemperatur min.	22 °C	14 °C
Batterietemperatur max.	25 °C	15 °C
Zellspannung min.	3.84 V	3.4 V
Zellspannung max.	4.14 V	3.64 V
Kilometerstand	10.554 km	10.829 km

Dr. Marcus Berger
CEO und Partner

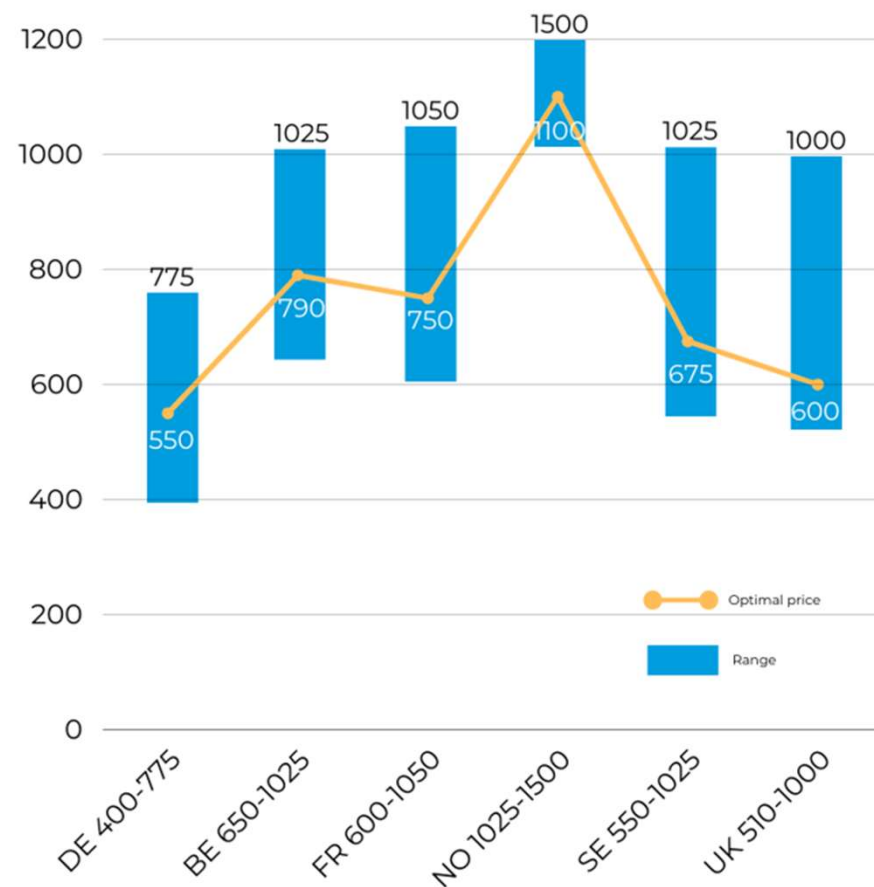
Dr. Wolfgang Berger MBA
CSO und Gründer

Dr. Nikolaus Mayerhofer
CTO und Gründer

TÜV

QR CODE

INDEPENDENT BATTERY CERTIFICATES INCREASE PRICES



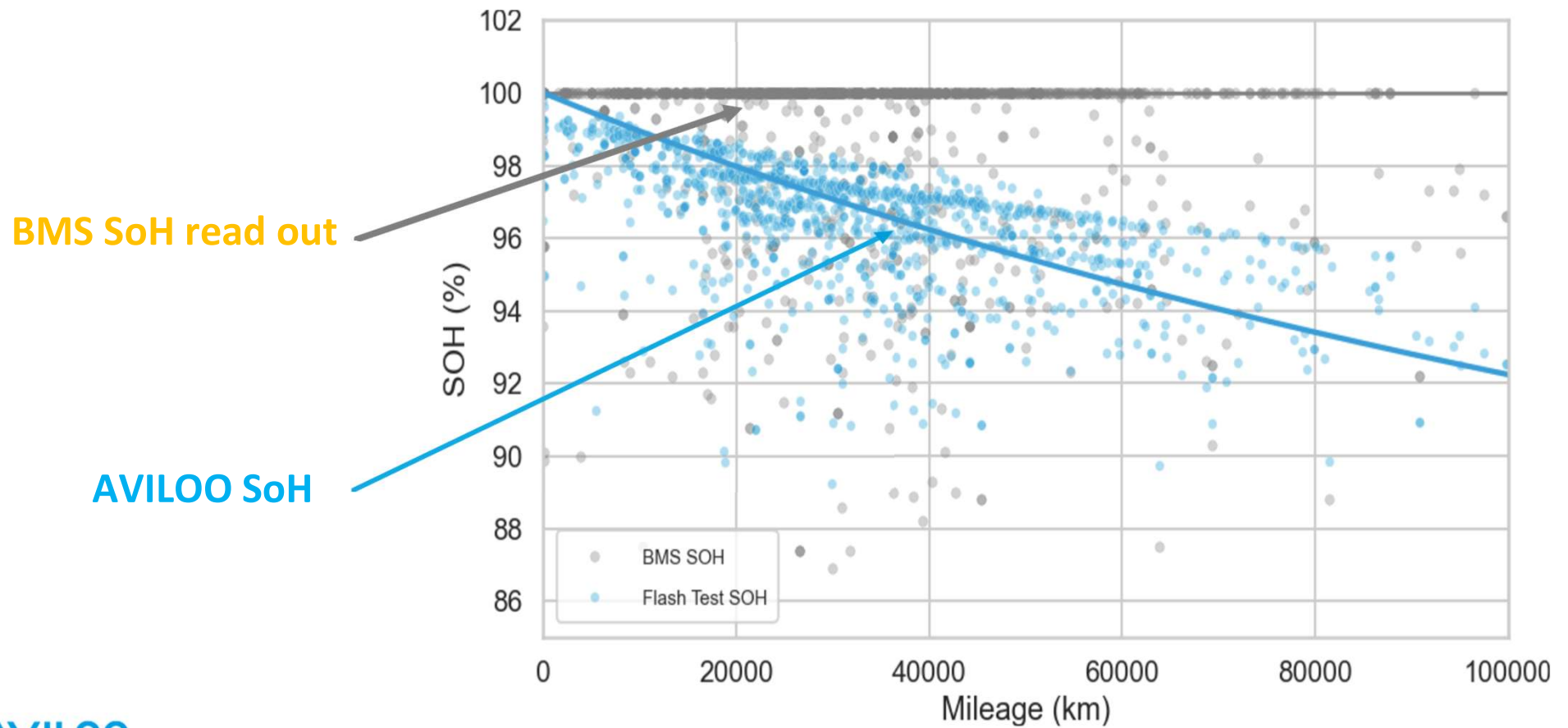
Van Westendorp's Price Sensitivity Meter

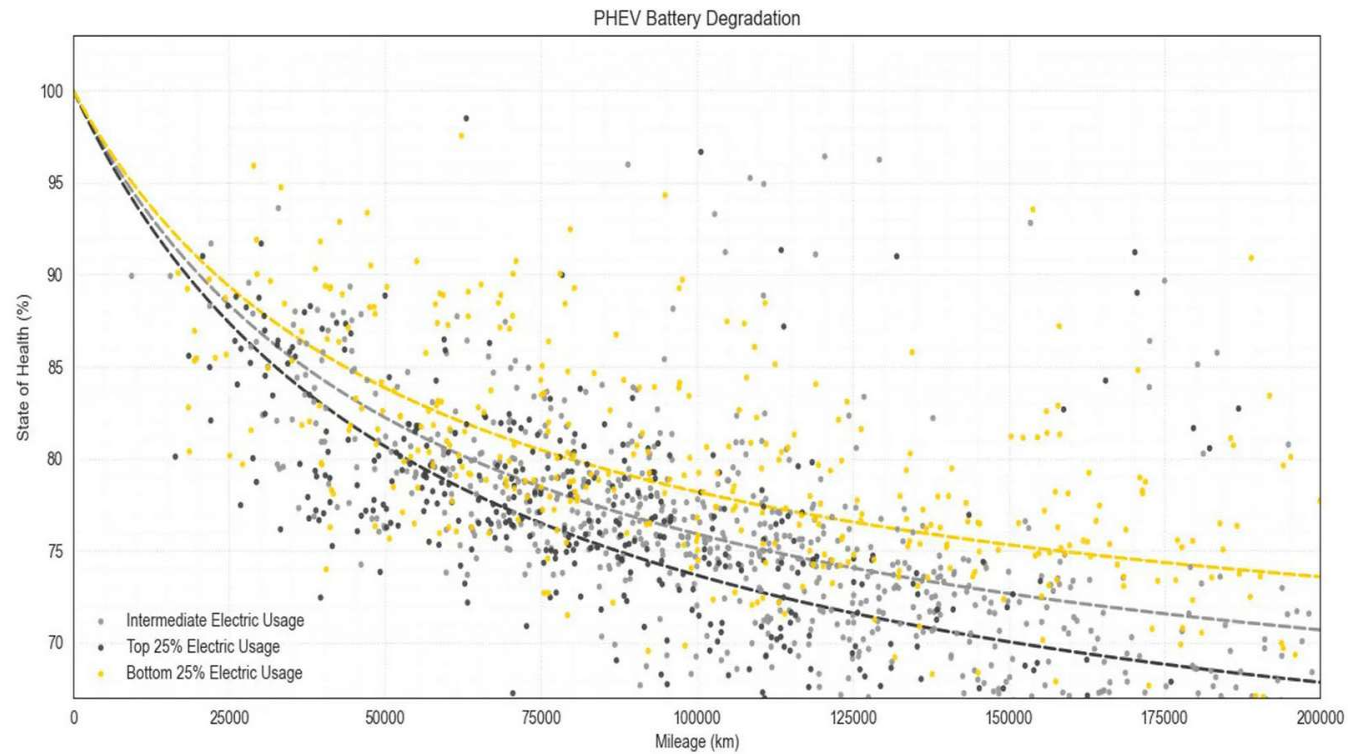
N=916, data gathered from FR, DE, NO, BE, UK, SE. Data retrieved July 2024

Are there further risks than you've shown in relying on a read out SoH?

Do you have an example?

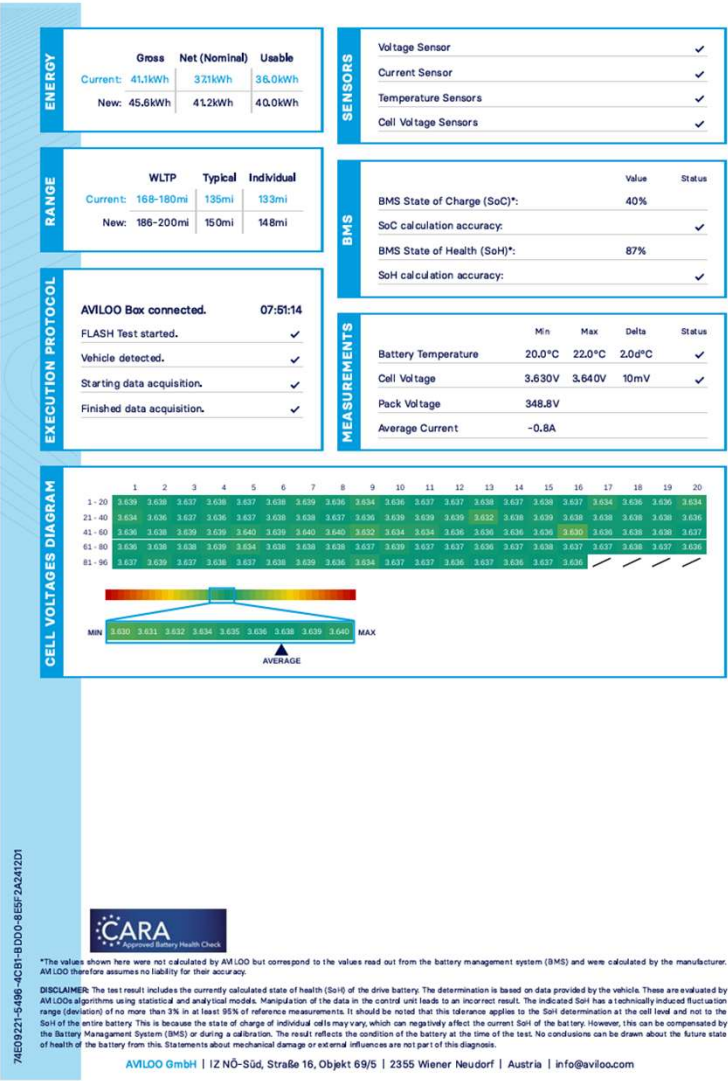
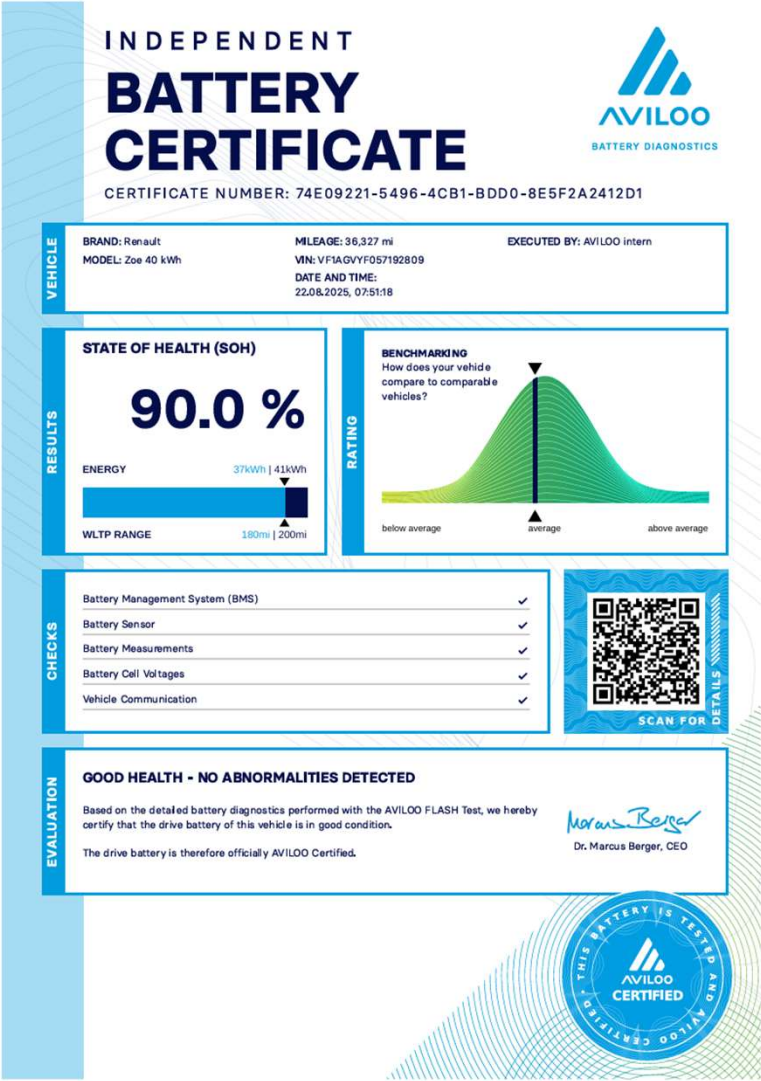
Brings read out trust?





Can you show us the result of the Omoda test and also a higher mileage used EV?

THE
FASTEST
AND MOST
ACCURATE
BATTERY
TEST



THE FASTEST BATTERY TEST - REPORT PREVIEW

BATTERY CERTIFICATE PREVIEW

CERTIFICATE NUMBER: 74E09221-5496-4CB1-****-*****



VEHICLE	BRAND: Renault	MILEAGE: 36,327 mi	EXECUTED BY: AVILOO intern
	MODEL: Zoe 40 kWh	DATE AND TIME: 22.08.2025, 07:51:18	



RESULTS	STATE OF HEALTH (SOH) 90.0 %	CHECKS	Battery Management System (BMS)	✓
	ENERGY 37kWh 41kWh		Battery Sensor	✓
	WLTP RANGE 180mi 200mi		Battery Measurements	✓
			Battery Cell Voltages	✓
			Vehicle Communication	✓

EVALUATION	GOOD HEALTH - NO ABNORMALITIES DETECTED	 Dr. Marcus Berger, CEO
	Based on the detailed battery diagnostics performed with the AVILOO FLASH Test, we hereby certify that the drive battery of this vehicle is in good condition. The drive battery is therefore officially AVILOO Certified.	



For more information about this test, visit aviloo.com/ft-preview
Scan the QR code to get the original report

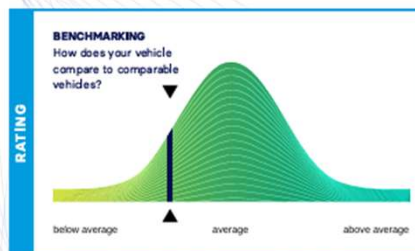
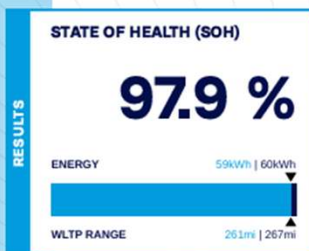
THE FASTEST BATTERY TEST – CERTIFIED

INDEPENDENT BATTERY CERTIFICATE



CERTIFICATE NUMBER: 07176332-6B43-4AC7-*****

VEHICLE	BRAND: Omoda	MILEAGE: 2,334 mi	EXECUTED BY:
	MODEL: E5 - 61 kWh	DATE AND TIME: 04.11.2025, 09:17:25	



CHECKS

Battery Management System (BMS)	✓
Battery Sensor	✓
Battery Measurements	✓
Battery Cell Voltages	✓
Vehicle Communication	✓



EVALUATION

GOOD HEALTH - NO ABNORMALITIES DETECTED

Based on the detailed battery diagnostics performed with the AVILOO FLASH Test, we hereby certify that the drive battery of this vehicle is in good condition.

The drive battery is therefore officially AVILOO Certified.

Marcus Berger
Dr. Marcus Berger, CEO



ENERGY

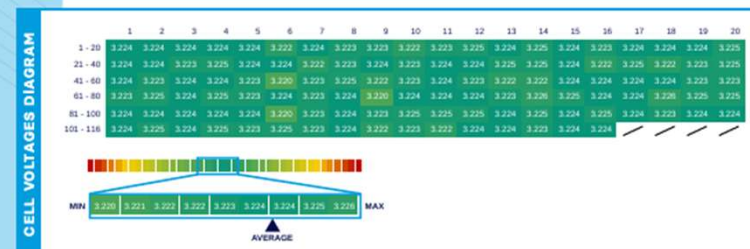
Gross	Net (Nominal)	Usable
Current: 59.7kWh	58.7kWh	56.1kWh
New: 610kWh	60.0kWh	573kWh

RANGE

WLTP	Typical
Current: 421-261mi	197mi
New: 430-267mi	201mi

EXECUTION PROTOCOL

AVILOO Box connected.	09:17:21
FLASH Test started.	✓
Vehicle detected.	✓
Starting data acquisition.	✓
Finished data acquisition.	✓
Analyzing data.	✓
Analysis completed.	✓



SENSORS

Voltage Sensor	✓
Current Sensor	✓
Temperature Sensors	✓
Cell Voltage Sensors	✓

BMS

	Value	Status
BMS State of Charge (SoC)*:	18%	
SoC calculation accuracy:		✓
BMS State of Health (SoH)*:	96%	
SoH calculation accuracy:		✓

MEASUREMENTS

	Min	Max	Delta	Status
Battery Temperature	14.0°C	14.0°C	0.0°C	✓
Cell Voltage	3.220V	3.226V	6mV	✓
Pack Voltage		373.9V		
Average Current		-1.5A		

*The values shown here were not calculated by AVILOO, but correspond to the values read out from the battery management system (BMS) and were calculated by the manufacturer. AVILOO therefore assumes no liability for their accuracy.

DISCLAIMER: The test result includes the currently calculated state of health (SoH) of the drive battery. The determination is based on data provided by the vehicle. These are evaluated by AVILOO's algorithms using statistical and analytical models. Manipulation of the data in the control unit leads to an incorrect result. The indicated SoH has a technically induced fluctuation range (deviation) of no more than 3% in at least 95% of reference measurements. It should be noted that this tolerance applies to the SoH determination at the cell level and not to the SoH of the entire battery. This is because the state of charge of individual cells may vary, which can negatively affect the current SoH of the battery. However, this can be compensated by the Battery Management System (BMS) or during a calibration. The result reflects the condition of the battery at the time of the test. No conclusions can be drawn about the future state of health of the battery from this. Statements about mechanical damage or external influences are not part of this diagnosis.

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Thank you for your attention!

H Í ƧÆĨŽŇ ĨŲMAŇ ĆĐÊĬ NŌŇŲĐĚCD ĆĈDD JŌŇŌŇŲÍŇŲŇŲŇ
 ĚJ ĨĬĬĤĚ



È IJHI Î Î ĚMPPŇŮŔ GÀVNŎČČPŎŇCE

