FLASH TEST REPORT

Execution

State of charge	100 %
Date	29/08/2023 05:02:52
Executed by	AVILOO

Vehicle

Brand	Hyundai
Model	Ioniq - 28 kWh
VIN	KMHC
Mileage	81,247 km

Analysis Result

AVILOO SCORE **95** / 100

High voltage battery usage and history
Analysis of charging & driving behavior
66 / 70

High voltage battery performance
Analysis of cell voltages and module temperatures.
29 / 30

High voltage battery control unit
Check of signals and calculations of the battery management control unit.
✔

Vehicle communication interface
Check of communication via the diagnostic interface.
✔

DI Wolfgang Berger MBA
Managing director

DI Nikolaus Mayerhofer
Managing director

Dr. Marcus Berger
Managing director

EXPLANATION OF THE
BATTERY FLASH TEST

ANALYSIS METHOD

The analysis performed is a combined result of: The communication quality between the diagnostic hardware AVILOO Box and the on-board diagnostic interface of the vehicle. The live battery data and data that indicates the previous use of the high voltage battery, which is made available to the AVILOO Box by the battery management system during the measurement. The plausibility check and classification of the battery condition using the collected values and a comparison with the AVILOO Battery Cloud using Big Data algorithms.

FLASH TEST EXECUTION PROTOCOL

05:02:49	AVILOO Box connected.
✔	Flash Test started.
✔	Vehicle detected.
✔	Starting data acquisition.
✔	Finished data acquisition.
✔	Analyzing data.
✔	Analysis completed.

DETAILED RESULTS OF PERFORMED CHECKS

Vehicle Information

VIN	KMHC
Date	29/08/2023 05:02:52
Mileage	81,247 km

Measurements High Voltage System

Battery temperature	27 °C
Maximum cell temperature deviation	1 °C
Pack voltage	394.4 V
Maximum cell voltage deviation	0 mV
Peak current during check	-0.6 A
State of Health (SoH - read from car manufacturer)*	100 %

*The SoH shown here was not calculated by AVILOO but corresponds to the SoH read out from the battery management system and calculated by the manufacturer. AVILOO therefore does not guarantee the correctness of this SoH.

AVILOO
BATTERY DIAGNOSTICS

AVILOO
BATTERY DIAGNOSTICS

FLASH TEST REPORT

Execution

State of charge			100 %
Date		08/04/2023 3:38:22 PM	
Executed by			---

Vehicle

Brand	Tesla
Model	Model 3 - 60,5 kWh
VIN	LRW3E7F
Mileage	13,208 km

Analysis Result

AVILOO SCORE   (!)

High voltage battery usage and history
Analysis of charging & driving behavior

61 / 70

High voltage battery performance
WARNING: Analysis of cell voltages and module temperatures failed.
For details see page 2.

! / 30

High voltage battery control unit
Check of signals and calculations of the battery management control unit.

✔

Vehicle communication interface
Check of communication via the diagnostic interface.

✔

DI Wolfgang Berger MBA
Managing director

DI Nikolaus Mayerhofer
Managing director

EXPLANATION OF THE
BATTERY FLASH TEST

ANALYSIS METHOD

The analysis performed is a combined result of: The communication quality between the diagnostic hardware AVILOO Box and the on-board diagnostic interface of the vehicle. The live battery data and data that indicates the previous use of the high voltage battery, which is made available to the AVILOO Box by the battery management system during the measurement. The plausibility check and classification of the battery condition using the collected values and a comparison with the AVILOO Battery Cloud using Big Data algorithms.

FLASH TEST EXECUTION PROTOCOL

15:38:19	AVILOO Box connected.
✔	Flash Test started.
✔	Vehicle detected.
✔	Starting data acquisition.
✔	Finished data acquisition.
✔	Analyzing data.
✔	Analysis completed.

DETAILED RESULTS OF PERFORMED CHECKS

Vehicle Information

VIN	LRW3E7F
Date	08/04/2023 3:38:22 PM
Mileage	13,208 km

Measurements High Voltage System

Battery temperature		26.5 °C
Maximum cell temperature deviation		1.5 °C
Pack voltage		362.2 V
High cell spread detected. This indicates a defective or heavily unbalanced cell.	(< 120.0 mV)	180 mV
Peak current during check		-26.14 A
State of Health (SoH - read from car manufacturer)*		89.42 %

*The SoH shown here was not calculated by AVILOO but corresponds to the SoH read out from the battery management system and calculated by the manufacturer. AVILOO therefore does not guarantee the correctness of this SoH.
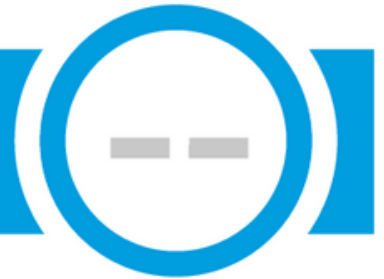
⋀ AVILOO
BATTERY DIAGNOSTICS

FLASH TEST REPORT

Execution

State of charge	74.5 %
Date	08/24/2023 11:51:14 AM
Executed by	---

Vehicle

Brand	Volkswagen
Model	ID4 - 77 kWh
VIN	WVGZZZ
Mileage	13,421 km

Analysis Result

AVILOO SCORE

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High voltage battery usage and history
Analysis of charging & driving behavior — **69** / 70

High voltage battery performance
Analysis of cell voltages and module temperatures. — **29** / 30

High voltage battery control unit
Check of signals and calculations of the battery management control unit. — ✔

Vehicle communication interface
At least one Check could not be performed, therefore the result may be inaccurate. For details, please refer to page 2! — ⚠

DI Wolfgang Berger MBA
Managing director

DI Nikolaus Mayerhofer
Managing director

EXPLANATION OF THE
BATTERY FLASH TEST

ANALYSIS METHOD

The analysis performed is a combined result of: The communication quality between the diagnostic hardware AVILOO Box and the on-board diagnostic interface of the vehicle. The live battery data and data that indicates the previous use of the high voltage battery, which is made available to the AVILOO Box by the battery management system during the measurement. The plausibility check and classification of the battery condition using the collected values and a comparison with the AVILOO Battery Cloud using Big Data algorithms.

FLASH TEST EXECUTION PROTOCOL

11:51:14	Flash Test started.
✔	Vehicle detected.
✔	Starting data acquisition.
✔	Finished data acquisition.
✔	Analyzing data.
✔	Analysis completed.

DETAILED RESULTS OF PERFORMED CHECKS

Vehicle Information

VIN	WVGZZZ
Date	08/24/2023 11:51:14 AM
Mileage	13,421 km

Measurements High Voltage System

Battery temperature	20.38 °C
Maximum cell temperature deviation	0.38 °C
Pack voltage	374.95 V
Maximum cell voltage deviation	6.1 mV
Peak current during check	-3.33 A
State of Health (SoH - read from car manufacturer)*	97.14 %

At least one check could not be performed due to missing signals. Contact the manufacturer.

*The SoH shown here was not calculated by AVILOO but corresponds to the SoH read out from the battery management system and calculated by the manufacturer. AVILOO therefore does not guarantee the correctness of this SoH.

AVILOO
BATTERY DIAGNOSTICS