

INDEPENDENT BATTERY CERTIFICATE



CERTIFICATE NUMBER: 4A27AAA6-0926-442E-8B1C-0FF7D348174A

VEHICLE

BRAND: Hyundai
MODEL: Ioniq 5 - 72,6 kWh

MILEAGE: 96,337 km
VIN: KMHKR81AFNU014641
DATE AND TIME:
05.09.2025, 14:47:50

EXECUTED BY: Carla AB

RESULTS

STATE OF HEALTH (SOH)



ENERGY

- kWh | 73kWh



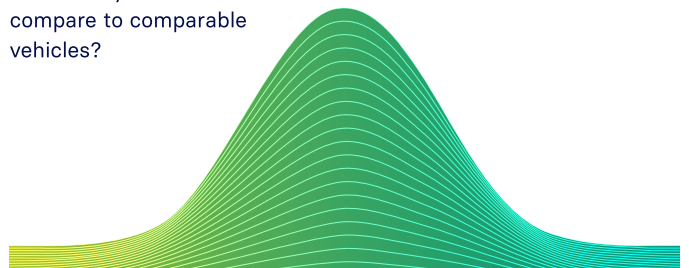
WLTP RANGE

- | 481km

RATING

BENCHMARKING

How does your vehicle compare to comparable vehicles?



below average

average

above average

CHECKS

Battery Management System (BMS) - warning detected



Battery Sensor



Battery Measurements - safety risk detected



Battery Cell Voltages



Vehicle Communication



SCAN FOR DETAILS

EVALUATION

SAFETY RISK! - POTENTIAL SAFETY HAZARD

During the detailed battery diagnosis with the AVILOO FLASH Test, safety concerning anomalies were detected that require immediate inspection. For Details scan the QR code.

For assistance, please contact AVILOO Customer Management.

Marcus Berger

Dr. Marcus Berger, CEO



ENERGY

	Gross	Net (Nominal)	Usable
Current:			
New:	77.0kWh	72.6kWh	68.9kWh

RANGE

	WLTP	Typical	Individual
Current:			
New:	430-481km	344km	416km

EXECUTION PROTOCOL

AVILOO Box connected.	14:47:47
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

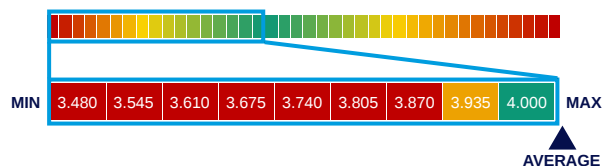
	Value	Status
BMS State of Charge (SoC)*:	15%	
SoC calculation accuracy:		✓
BMS State of Health (SoH)*:	100%	
SoH calculation accuracy:		!

MEASUREMENTS

	Min	Max	Delta	Status
Battery Temperature	19.0°C	22.0°C	3.0°C	✓
Cell Voltage	3.480V	4.000V	520mV	!
Pack Voltage	720.0V			
Average Current	-2.0A			

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	3.979	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.983	3.999	3.999	3.999
21 - 40	3.999	3.997	3.998	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.991	3.999	3.999	3.999	3.999	3.999
41 - 60	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999
61 - 80	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.982	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.480
81 - 100	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.979	3.999	3.999	3.999	3.999	3.999	3.991	3.999
101 - 120	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.982	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999
121 - 140	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999
141 - 160	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.979	3.999	3.999	3.999
161 - 180	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	3.999	4.000



MESSAGES

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.

The state of health calculated by the BMS is implausible. This may result in a reduced range or the vehicle stopping before reaching 0% charge. Try to recalibrate the BMS with a full cycle, then try the FLASH Test again, if the problem persists we recommend a PREMIUM Test for a deeper analysis or contact AVILOO Customer Management for assistance.

The determined SoH is below the recommended limit for normal operation. In order to identify the underlying cause of this low SoH we recommend either conducting a PREMIUM Test or arranging a visit to a workshop. For...

*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.