

INDEPENDENT BATTERY CERTIFICATE



CERTIFICATE NUMBER: 1B81B8B2-1B73-4B6C-8171-03A7AFBF78AC

VEHICLE

BRAND: Hyundai
MODEL: Ioniq 5 N - 84 kWh

MILEAGE: 23,010 km
VIN: KMHKN818RRU000678
DATE AND TIME:
22/07/2026, 14:11

EXECUTED BY: Carma

RESULTS

Independent
STATE OF HEALTH (SOH)

98.2 %

ENERGY

79kWh | 80kWh

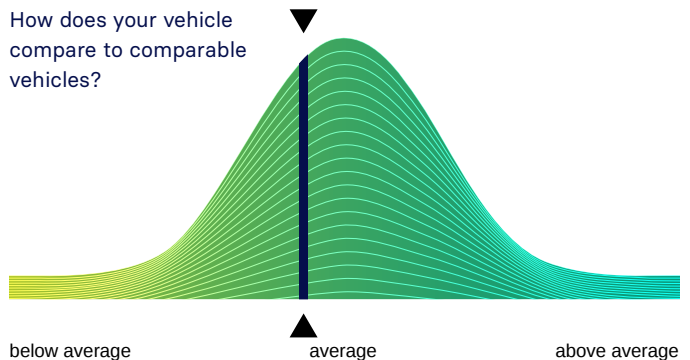
WLTP RANGE

440km | 448km

RATING

BENCHMARKING

How does your vehicle
compare to comparable
vehicles?



CHECKS

Battery Management System (BMS) ✓

Battery Sensor ✓

Battery Measurements ✓

Battery Cell Voltages ✓

Vehicle Communication ✓



SCAN FOR
DETAILS

EVALUATION

EXCELLENT 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 excellent condition.

The drive battery is therefore officially AVILOO Certified.

Marcus Berger

Dr. Marcus Berger, CEO



ENERGY

	Gross	Net (Nominal)	Usable
Current:	82.4kWh	78.5kWh	76.5kWh
New:	84.0kWh	80.0kWh	78.0kWh

RANGE

	WLTP	Typical	Individual
Current:	440km	341km	335km
New:	448km	348km	341km

EXECUTION PROTOCOL

AVILOO Box connected. 14:11:22

FLASH Test started.	✓
Starting data acquisition.	✓
Vehicle detected.	✓
Finished data acquisition.	✓
Analyzing data.	✓
Analysis completed.	✓

SENSORS

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

BMS

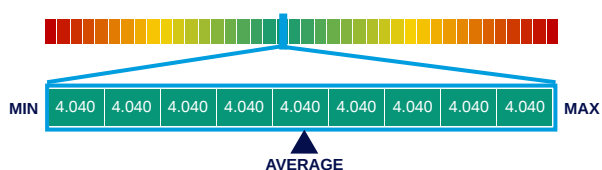
	Value	Status
BMS State of Charge (SoC)*:	87%	
SoC calculation accuracy:		✓
BMS State of Health (SoH)*:	99%	
SoH calculation accuracy:		✓

MEASUREMENTS

	Min	Max	Delta	Status
Battery Temperature	15.0°C	16.0°C	1.0°C	✓
Cell Voltage	4.040V	4.040V	0mV	✓
Pack Voltage	777.8V			
Average Current	-1.5A			

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	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040
21 - 40	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040
41 - 60	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040
61 - 80	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040
81 - 100	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040
101 - 120	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040
121 - 140	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040
141 - 160	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040
161 - 180	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040
181 - 192	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040	4.040



*The values shown here were read directly from the vehicle's battery management system (BMS) and are calculated and provided by the vehicle manufacturer. The State of Health (SoH) displayed corresponds to the value reported by the BMS and is CARA-certified.

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.