INDEPENDENT

BATTERY CERTIFICATE

AVILOO
BATTERY DIAGNOSTICS

CERTIFICATE NUMBER: 016B5CCE-9961-4EDF-BB50-6987C956CDA6

VEHICLE

BRAND: Hyundai
MODEL: Ioniq 5 - 77,4 kWh

MILEAGE: 27,860 mi
VIN: KM8KNDAF7PU208234
DATE AND TIME:
11/6/26, 4:43 PM

EXECUTED BY: Reds Auto and Truck

RESULTS

Independent
STATE OF HEALTH (SOH)

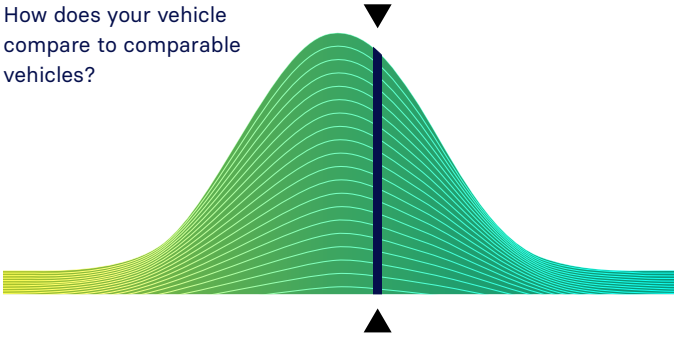
97.6 %

ENERGY 75kWh | 77kWh

WLTP RANGE 307mi | 315mi

RATING

BENCHMARKING
How does your vehicle compare to comparable vehicles?



below average | average | above average

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.

Dr. Marcus Berger, CEO

AVILOO CERTIFIED
BATTERY IS TESTED AND AVILOO CERTIFIED

EXECUTED BY:

RED'S AUTO AND TRUCK
EST 1974
LONGMONT, CO

ENERGY

	Gross	Net (Nominal)	Usable
Current:	78.0kWh	75.5kWh	71.6kWh
New:	80.0kWh	77.4kWh	73.4kWh

RANGE

	WLTP	Typical	Individual
Current:	275-307mi	219mi	265mi
New:	282-315mi	225mi	272mi

EXECUTION PROTOCOL

AVILOO Box connected. **16:43:16**

- FLASH Test started. ✓
- Data acquisition started. ✓
- Vehicle detected. ✓
- Data acquisition completed. ✓
- Data analysis started. ✓
- Data analysis completed. ✓

SENSORS

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

BMS

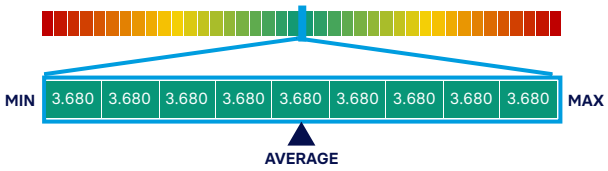
	Value	Status
BMS State of Charge (SoC)*:	51%	
SoC calculation accuracy:		✓
BMS State of Health (SoH)*:	100%	
SoH calculation accuracy:		✓

MEASUREMENTS

	Min	Max	Delta	Status
Battery Temperature	53.6F	57.2F	3.6F	✓
Cell Voltage	3.680V	3.680V	0mV	✓
Pack Voltage	709.1V			
Average Current	-0.4A			

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	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680
21 - 40	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680
41 - 60	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680
61 - 80	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680
81 - 100	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680
101 - 120	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680
121 - 140	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680
141 - 160	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680
161 - 180	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680
181 - 192	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680	3.680								



*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.

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