

INDEPENDENT

BATTERY

CERTIFICATE



CERTIFICATE NUMBER: Removed in sample

VEHICLE

BRAND: BMW

MILEAGE: 54,175 km

EXECUTED BY: Removed

MODEL: 3 Series Plug-in Hybrid - 7,6 kWh

VIN: Removed

DATE AND TIME: Removed

RESULTS

Independent
STATE OF HEALTH (SOH)

93.3 %

ENERGY

5kWh | 6kWh

WLTP RANGE

33km | 35km

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 ✓

SAMPLE REPORT

Original-report

QR removed

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



ENERGY

	Gross	Net (Nominal)	Usable
Current:	7.1kWh	5.3kWh	5.3kWh
New:	7.6kWh	5.7kWh	5.7kWh

RANGE

	WLTP	Typical
Current:	30-33km	24km
New:	32-35km	26km

EXECUTION PROTOCOL

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

SENSORS

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

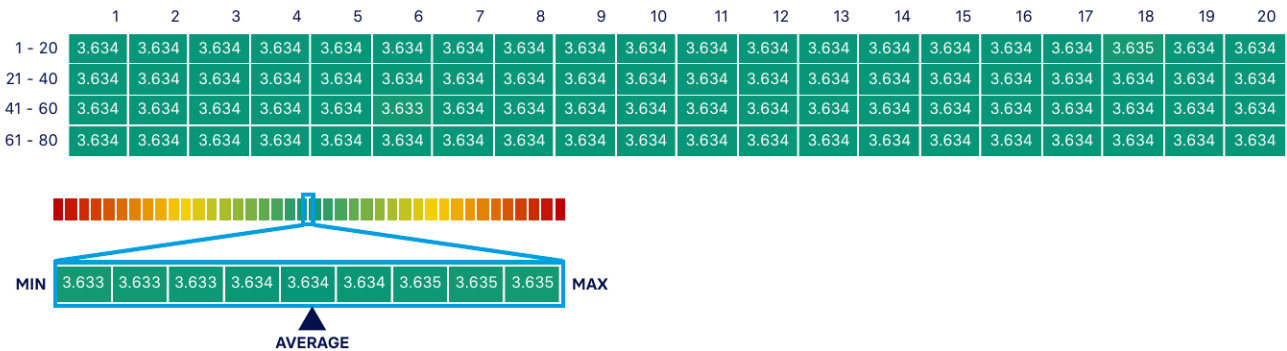
BMS

	Value	Status
BMS State of Charge (SoC)*:	18%	
SoC calculation accuracy:		✓
BMS State of Health (SoH)*:	95%	
SoH calculation accuracy:		✓

MEASUREMENTS

	Min	Max	Delta	Status
Battery Temperature	17.0°C	18.0°C	1.0°C	✓
Cell Voltage	3.633V	3.635V	2mV	✓
Pack Voltage	290.8V			
Average Current	-1.3A			

CELL VOLTAGES DIAGRAM



*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.