

INDEPENDENT BATTERY CERTIFICATE



CERTIFICATE NUMBER: 25153512-CA6B-452E-91C7-18449D0CD3A9

VEHICLE

BRAND: Volvo
MODEL: XC40 Recharge - 82 kWh

MILEAGE: 26,125 km
VIN: LYVXZERR1RL220082
DATE AND TIME:
09/07/2026, 09:24

EXECUTED BY: Carma

RESULTS

Independent
STATE OF HEALTH (SOH)

96.3 %

ENERGY

77kWh | 80kWh



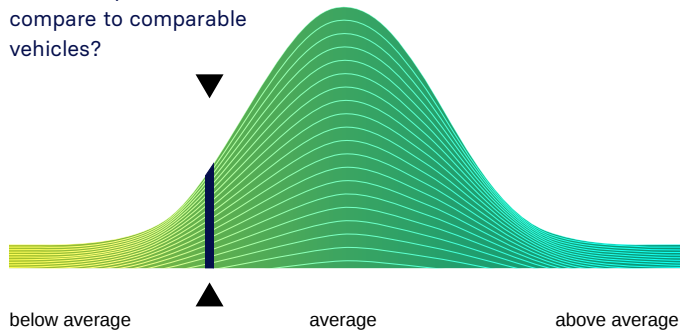
WLTP RANGE

554km | 576km

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

GOOD 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 good condition.

The drive battery is therefore officially AVILOO Certified.

Marcus Berger

Dr. Marcus Berger, CEO



ENERGY

	Gross	Net (Nominal)	Usable
Current:	78.9kWh	77.0kWh	75.1kWh
New:	82.0kWh	80.0kWh	78.0kWh

RANGE

	WLTP	Typical	Individual
Current:	467-554km	394km	434km
New:	485-576km	409km	451km

EXECUTION PROTOCOL

AVILOO Box connected.	09:24:09
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	✓

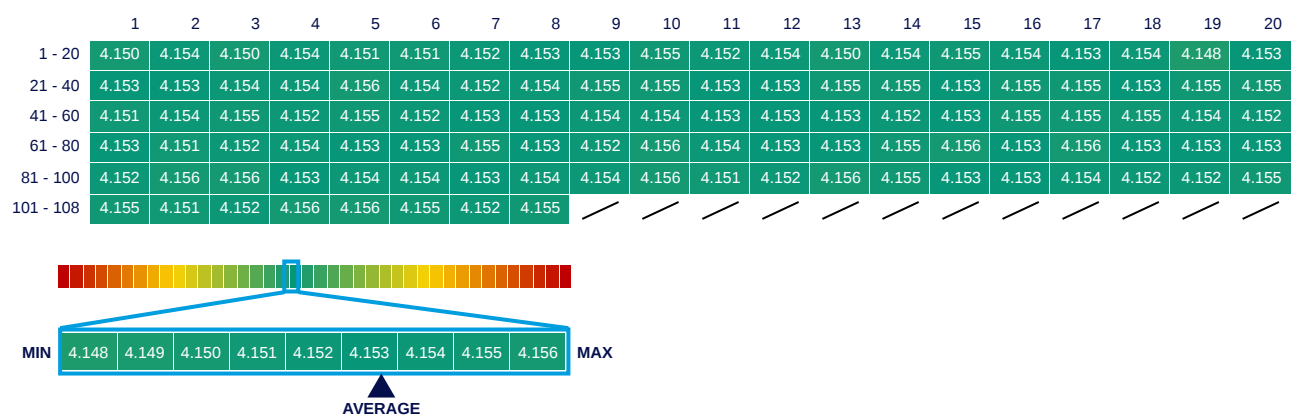
BMS

	Value	Status
BMS State of Charge (SoC)*:	82%	
SoC calculation accuracy:		✓
BMS State of Health (SoH)*:	96%	
SoH calculation accuracy:		✓

MEASUREMENTS

	Min	Max	Delta	Status
Battery Temperature	15.2°C	16.4°C	1.2°C	✓
Cell Voltage	4.148V	4.156V	8mV	✓
Pack Voltage	448.5V			
Average Current	-1.4A			

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.