

INDEPENDENT BATTERY CERTIFICATE



CERTIFICATE NUMBER: 784D14E3-DFCA-43E6-A637-B5642C1151B1

VEHICLE

BRAND: Volvo
MODEL: XC40 Recharge - 69 kWh

MILEAGE: 46,227 km
VIN: YV1XZEFV5P2050101
DATE AND TIME:
26.08.2025, 09:06:37

EXECUTED BY: Carla AB

RESULTS

STATE OF HEALTH (SOH)

96.4 %

ENERGY

65kWh | 67kWh



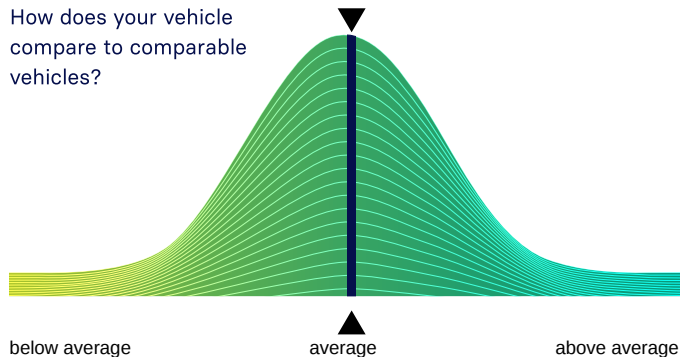
WLTP RANGE

460km | 477km

RATING

BENCHMARKING

How does your vehicle compare to comparable vehicles?



CHECKS

Battery Management System (BMS)	✓
Battery Sensor	✓
Battery Measurements	✓
Battery Cell Voltages	✓
Vehicle Communication	✓



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:	66.5kWh	64.6kWh	62.0kWh
New:	69.0kWh	67.0kWh	64.3kWh

RANGE

	WLTP	Typical	Individual
Current:	408-460km	325km	302km
New:	423-477km	337km	313km

EXECUTION PROTOCOL

AVILOO Box connected. 09:06:34

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

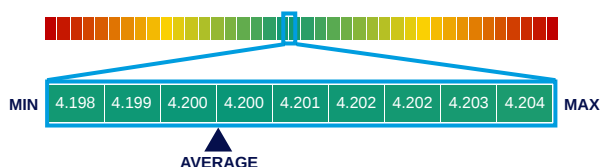
	Value	Status
BMS State of Charge (SoC)*:	94%	
SoC calculation accuracy:		✓
BMS State of Health (SoH)*:	96%	
SoH calculation accuracy:		✓

MEASUREMENTS

	Min	Max	Delta	Status
Battery Temperature	16.0°C	17.9°C	1.9°C	✓
Cell Voltage	4.198V	4.204V	6mV	✓
Pack Voltage	403.4V			
Average Current	-4.5A			

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	4.198	4.198	4.201	4.202	4.200	4.199	4.199	4.202	4.199	4.202	4.200	4.202	4.198	4.198	4.201	4.199	4.198	4.200	4.201	4.202
21 - 40	4.202	4.200	4.202	4.203	4.199	4.202	4.199	4.201	4.199	4.201	4.200	4.202	4.200	4.201	4.200	4.200	4.202	4.200	4.200	4.202
41 - 60	4.200	4.200	4.200	4.199	4.202	4.202	4.202	4.201	4.200	4.199	4.199	4.201	4.201	4.200	4.200	4.201	4.198	4.203	4.201	4.203
61 - 80	4.199	4.200	4.200	4.200	4.202	4.202	4.199	4.203	4.200	4.202	4.204	4.201	4.202	4.200	4.200	4.200	4.200	4.200	4.200	4.202
81 - 96	4.201	4.201	4.203	4.203	4.202	4.201	4.202	4.199	4.201	4.201	4.200	4.199	4.200	4.200	4.203	4.202	/	/	/	/



*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.