

INDEPENDENT BATTERY CERTIFICATE



CERTIFICATE NUMBER: 8160B1E0-8FC8-4E29-B8CC-8DCE1C7459A0

VEHICLE

BRAND: Volvo
MODEL: XC40 Recharge - 69 kWh

MILEAGE: 107,556 km
VIN: YV1XZEFVKN2755380
DATE AND TIME:
01.08.2025, 14:26:17

EXECUTED BY: Carla AB

RESULTS

STATE OF HEALTH (SOH)

94.6 %

ENERGY

63kWh | 67kWh



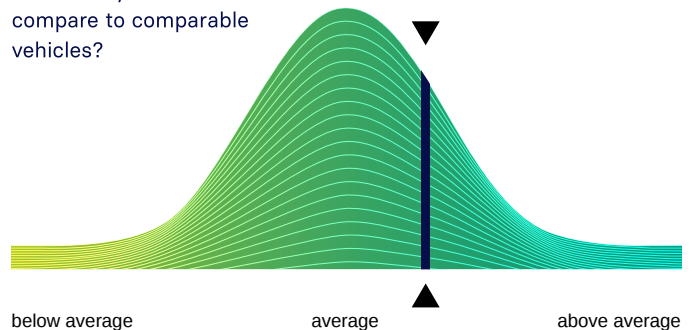
WLTP RANGE

451km | 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:	65.3kWh	63.4kWh	60.8kWh
New:	69.0kWh	67.0kWh	64.3kWh

RANGE

	WLTP	Typical	Individual
Current:	400-451km	319km	280km
New:	423-477km	337km	296km

EXECUTION PROTOCOL

AVILOO Box connected. 14:26:13

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

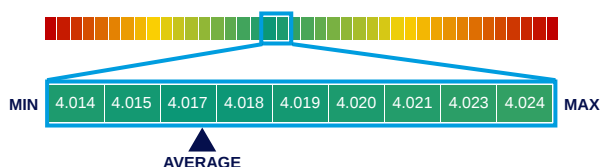
	Value	Status
BMS State of Charge (SoC)*:	74%	
SoC calculation accuracy:		✓
BMS State of Health (SoH)*:	96%	
SoH calculation accuracy:		✓

MEASUREMENTS

	Min	Max	Delta	Status
Battery Temperature	19.0°C	20.2°C	1.2°C	✓
Cell Voltage	4.014V	4.024V	10mV	✓
Pack Voltage	385.8V			
Average Current	-3.2A			

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	4.021	4.020	4.021	4.017	4.022	4.021	4.023	4.022	4.022	4.020	4.020	4.021	4.023	4.020	4.021	4.018	4.017	4.018	4.019	4.020
21 - 40	4.017	4.017	4.017	4.016	4.024	4.016	4.017	4.022	4.018	4.015	4.017	4.017	4.017	4.021	4.017	4.019	4.019	4.020	4.018	4.020
41 - 60	4.018	4.020	4.018	4.019	4.017	4.017	4.015	4.017	4.021	4.018	4.019	4.014	4.016	4.021	4.015	4.015	4.015	4.017	4.020	4.021
61 - 80	4.018	4.019	4.015	4.015	4.018	4.016	4.020	4.015	4.018	4.018	4.016	4.017	4.018	4.017	4.015	4.017	4.017	4.018	4.016	4.015
81 - 96	4.015	4.016	4.017	4.016	4.017	4.019	4.017	4.017	4.016	4.016	4.017	4.017	4.017	4.016	4.014	4.017	/	/	/	/



*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.