INDEPENDENT

BATTERY CERTIFICATE

AVILOO
BATTERY DIAGNOSTICS

CERTIFICATE NUMBER: 33D949C2-A704-4940-B194-AA1C65F06D4B

VEHICLE

BRAND: Nissan
MODEL: Leaf ZE1 - 40 kWh

MILEAGE: 20 mi
VIN: 1N4AZ1BV3SC561650
DATE AND TIME:
10/15/26, 9:31 AM

EXECUTED BY: Reds Auto and Truck

RESULTS

Independent
STATE OF HEALTH (SOH)

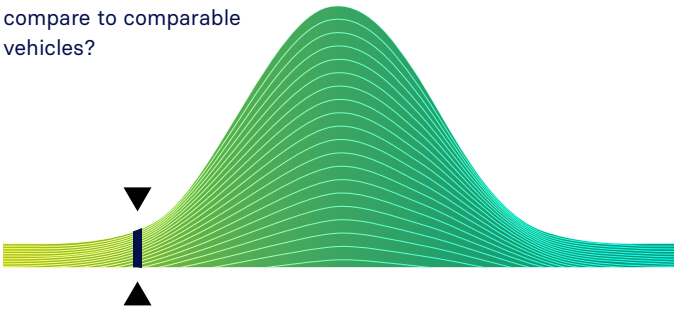
97.3 %

ENERGY 38kWh | 39kWh

WLTP RANGE 163mi | 168mi

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

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.

Dr. Marcus Berger, CEO

THIS BATTERY IS TESTED AND AVILOO CERTIFIED
AVILOO CERTIFIED

EXECUTED BY:

Partner Logo

ENERGY

	Gross	Net (Nominal)	Usable
Current:	38.9kWh	37.9kWh	33.6kWh
New:	40.0kWh	39.0kWh	34.5kWh

SENSORS

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

RANGE

	WLTP	Typical
Current:	163mi	130mi
New:	168mi	133mi

BMS

	Value	Status
BMS State of Charge (SoC)*:	62%	
SoC calculation accuracy:		✓
BMS State of Health (SoH)*:	98%	
SoH calculation accuracy:		✓

EXECUTION PROTOCOL

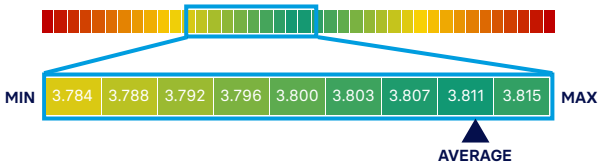
AVILOO Box connected.	09:30:58
FLASH Test started.	✓
Vehicle detected.	✓
Data acquisition started.	✓
Data acquisition completed.	✓
Data analysis started.	✓
Data analysis completed.	✓

MEASUREMENTS

	Min	Max	Delta	Status
Battery Temperature	46.4F	48.2F	1.8F	✓
Cell Voltage	3.784V	3.815V	31mV	✓
Pack Voltage	365.5V			
Average Current	-1.3A			

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	3.811	3.811	3.813	3.813	3.813	3.813	3.811	3.811	3.811	3.813	3.811	3.811	3.811	3.810	3.810	3.810	3.811	3.811	3.813	3.811
21 - 40	3.813	3.810	3.813	3.811	3.810	3.808	3.808	3.806	3.807	3.809	3.809	3.809	3.808	3.808	3.810	3.808	3.813	3.811	3.813	3.811
41 - 60	3.814	3.813	3.814	3.813	3.814	3.813	3.813	3.810	3.808	3.809	3.810	3.810	3.809	3.809	3.809	3.810	3.808	3.806	3.808	3.809
61 - 80	3.810	3.810	3.811	3.809	3.806	3.807	3.807	3.808	3.809	3.809	3.811	3.808	3.806	3.803	3.811	3.811	3.806	3.807	3.808	3.807
81 - 96	3.807	3.809	3.807	3.808	3.808	3.809	3.811	3.811	3.784	3.815	3.811	3.810	3.810	3.810	3.813	3.809				



*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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