



2023

# Nissan Ariya

87 kWh electric FWD automatic



10.0   
/10

Clean Air  
Index

9.3   
/10

Energy Efficiency  
Index

9.5   
/10

Greenhouse Gas  
Index



## Laboratory Test

NMHC

NO<sub>x</sub>

NH<sub>3</sub>

CO

PN

10.0/10 Cold Test



10.0/10 Warm Test



10.0/10 Highway



10.0/10 Cold Ambient Test



## Road Test

10.0/10 On-Road Drive



5.0/5 On-Road Short Trip



8.0/8 On-Road Heavy Load



5.0/5 On-Road Light Load



2.0/2 Congestion



n.a.



good



adequate



marginal



weak



poor

## Comments

With no tailpipe emissions, the electric Nissan Ariya naturally scores the full 10 points in the Clean Air Part of the assessment.

## Energy Efficiency Tests



### Laboratory Test

#### Energy

10.0/10	Cold Test		→	19.3 kWh/100 km
10.0/10	Warm Test		→	18.5 kWh/100 km
8.9/10	Highway		→	28.0 kWh/100 km
8.4/10	Cold Ambient Test		→	31.2 kWh/100 km

#### Consumption

#### Driving Range

Average	21.9 kWh/100 km	462 km
Worst-case	31.2 kWh/100 km	313 km



n.a.



good



adequate



marginal



weak



poor

### Comments

In the Cold Ambient Test at -7°C the high heating demand increases the Ariya's consumption to 31.2 kWh/100 km, whereas in the 23°C Cold and Warm start laboratory tests the values are 19.3 and 18.5 kWh/100 km, respectively. The challenging BAB130 Highway cycle requires 28 kWh/100 km. The standard On-Road Drive was performed in cold weather at ca. -1°C and the Nissan needed about 24 kWh/100 km. The usable battery capacity measured by Green NCAP is 89.6 kWh, which is more than the officially declared value. When charging with 11 kW, the overall efficiency from the grid to the output side of the battery is an impressive 91.6%.

# 9.5 Greenhouse Gases Tests

/10



## Greenhouse gases

CO<sub>2</sub>

N<sub>2</sub>O

CH<sub>4</sub>

**10.0/10** Cold Test



**10.0/10** Warm Test



**9.3/10** Highway



**8.8/10** Cold Ambient Test



n.a.



good



adequate



marginal



weak



poor

## Comments

The Greenhouse Gas (GHG) Index is based on a Well-to-Wheel+ approach, meaning that the GHG emissions related to the supply of the energy are added to those of the tailpipe. The vehicle's production is not yet included in the assessment due to the implicit limitations of generic data about global supply chains, but it is estimated in Green NCAP's LCA results [↗](#). As the Ariya is purely electric, its GHG emissions originate only from the upstream processes of electricity supply – about 52–88 g CO<sub>2</sub>-eq./km, depending on the test consumption and assuming an average European energy mix. Thanks to its efficient powertrain and charger and the relatively low CO<sub>2</sub> emissions of EU electricity mix, the car scores a high 9.5 out of 10.

## Our Verdict

The Ariya is a next generation electric vehicle from Nissan. The large battery enables the two tonne vehicle to drive more than 500 km according to the WLTP procedure. With the high consumption measured in Green NCAP's Cold Ambient Test, a range of 313 km can be covered, starting with a full battery; in the Highway Test the value is 349 km. When charging with 11 kW, 91.6% of the energy taken from the electricity grid is available at the battery's output side – this is the highest value measured by Green NCAP so far and addresses an important aspect of sustainability and users' costs. During a full discharge, the battery is able to deliver 89.6 kWh of usable energy, which is more than the officially declared 87 kWh. The Nissan Ariya confidently reaches an Average Score of 96% and 5 Green stars.

## Disclaimer

## Specification

Publication Date 04 2023	Tested Car JN1TBAFE0U030xxxx	Tyres 235/55R19	Emissions Class Euro 6 AX
Mass 2,076 kg	Engine Size n.a.	System Power/Torque 178 kW/300 Nm	Declared CO <sub>2</sub> n.a.
Declared Battery Capacity 87.0 kWh	Declared Driving Range Overall 529 km City 721 km	Declared Consumption 18.3 kWh/100 km	
Heating Concept PTC + Heat pump			



Think before you print