



Nissan Leaf

The new car?

Review | Nissan is self-assured. So self-assured even that they praise the Leaf with the slogan: "the new car". The electrical Nissan is supposed to change driving forever. The Leaf promises to offer all advantages of a traditional car, but without the harmful exhaust fumes. Is the Nissan Leaf indeed the first of a new generation of cars?

Pling! With a calming, Zen-like sound the Nissan Leaf comes alive. Because there's no internal combustion engine under the bonnet, a sound informs the driver that the car is turned "on".

At the same time, an imposing display with colourful animations comes alive. Here the Leaf significantly differs from a traditional car. In the centre a big speedometer can be found. All other information is unique to an electric vehicle. For example, a bar shows how much electricity is being used or recuperated while braking or coasting. This bar replaces the rev counter: an electric motor is so strong that it doesn't require a gearbox and thus it is not necessary to change gears at a certain engine speed.



Performance

With a petrol engine the power increases while the engine speed increases. From the very first instant, an electric motor delivers its maximum torque. Only a top class limousine with a twelve-cylinder engine accelerates with the same ease as the Nissan Leaf. On top of that the Leaf is as quiet as a luxury car from the top segment; once at cruising speed only a subtle whistle can be heard in the background.

The usual vibration from the engine is also absent, which makes the Leaf often go faster than expected. Even better: this eco-car is rather spritely! At the traffic lights the Leaf easily outperforms most other cars.

Nissan promises a top speed of "over 90 mph" and that is not an exaggeration; during this test the car briefly showed "99 mph" on the speedometer. Electric cars are certainly not slow or boring!



Handling

While the Leaf is superior to many other cars in the engine department, handling is no more than adequate. No less than 48 heavy batteries are installed under the floor and it shows. Because the batteries are positioned low and centrally in the car, the Leaf is safe and stable. It is almost impossible to unbalance the car, yet it isn't dynamic or sporty to drive. Also, the steering is too light to get a good feeling with the car.

Especially when braking, it is noticeable how heavy the vehicle really is. Of course the Leaf does comply to all legal requirements, but an emergency stop is performed with a lot of drama.

A real car

Nissan emphasises that the Leaf is "a real car". The manufacturer means to say that the Leaf isn't a miniature car only aimed at idealists. The Leaf is about the size of a Volkswagen Golf or Opel Astra and offers about the same space. The Leaf is a four-seater car and offers a decent sized boot as well. The innovative technology doesn't go on the expense of space or practical uses.



To make things even better: the Leaf has a normal price tag as well. For the price of a Nissan Leaf, faster cars and more exciting cars can be bought, yet the Leaf offers the same luxury as other cars in the same price range. For example a parking camera, audio system (with iPod connector), climate control and keyless entry all come as standard.



Range

The satnav has some features that are unique to the Leaf. The Leaf is a 100% electric vehicle, without a backup engine or hybrid drive. After about 100 miles the car comes to a standstill.

To reduce the fear of running out of electricity ("range anxiety"), the satellite navigation highlights the range of the car on the map. The satnav also knows all charging stations so that it can plan a journey, including stopovers for charging the batteries.



The promised range can actually be fully realised and that is exceptional for an electric vehicle. Do note that use of the air conditioning and heater can significantly reduce the range (-46%). Thanks to favourable

weather conditions neither where necessary during this test drive, so twice 120 km was covered on a full battery.

Charging

Charging can be done in two ways: with a special quick charger or via the regular wall socket at home. Using the quick charger the battery can be filled up to 80% in just 30 minutes. Using the wall plug, completely charging the battery takes about four hours.



The test drive took place in Portugal, because this country has the highest number of charging stations. Those charging stations are pleasantly easy to operate. The driver identifies himself with a smart card, after which a door opens to give access to the socket. The Leaf driver brings his own cable and connects the car to the charging station.

Via the display in the dashboard, with lights under the windscreen and via an iPhone app, one can see how far the charging process has progressed. After just one try, charging an electric car is easier than pumping gas! On top of that, running on electricity is much cheaper than any liquid fuel. In Portugal, driving the Leaf cost just two euros per one hundred kilometres.



Conclusion

Does the Nissan Leaf mean the definitive breakthrough for the electric car? Yes and no. To start with the latter: the range is still too limited. Those who travel more than 100 miles per day will not be able to make it to the destination, despite all well meant and cleverly made driving aids.

On the other hand, the Leaf is more comfortable than most conventional cars. Handling, safety and space are comparable to any traditional car. Compared to other electrical cars the Leaf is a more mature car and is therefore not only aimed at idealists. How green the Leaf really is, depends on the source of the electricity. In almost all cases driving electrically is (much) cheaper than running on petrol or diesel.

Whether or not the Leaf is the new car remains to be seen. The fact is that the Nissan Leaf is the best electric car of this moment. ■



Specifications

Nissan Leaf base

Size and weight

Length x width x height	445 x 177 x 155 cm
Wheelbase	270 cm
Kerb weight	1.525 kg
Trailer	unknown
Trailer - braked	440 kg
Fuel capacity	unknown
Luggage space	330/680 l
Tyre size	205/55R16

Engine and performance



Capacity	unknown
Cylinders / valves	unknown
Max power	109 PS @ 1 rpm
Max torque	280 Nm @ 1 rpm
Drive	front wheels
Acceleration 0 - 62 mph	11.9 secs
Top speed	140 km/h
Average mileage	INF l / 100 km
Mileage urban	INF l / 100 km
Mileage extra urban	INF l / 100 km
CO2 emissions	unknown

Price

Price	Â£ 23,990
Price base model	Â£ 23,990