



Renault Zoe Heartbreaker

Review | This is Zoe, Renault's latest beauty. That isn't just because of her looks. Zoe looks nice, but it's her clean spirit that really makes her stand out from the crowd. Zoe is fully electric and therefore emission free. And Zoe is idealistic as she wants to make electric driving available for everyone.

When developing an electric car, the developers have to make a decision. More batteries mean the car has a greater range. Yet, more batteries add weight and that affects handling. Also, the batteries are the most costly part of an electric car.

The art of making a good electric car is finding the right combination of range, weight and price. The first electric vehicles merely opted for weight reduction: a small electric car is more affordable and has a longer range thanks to its low weight. Yet, compared to a similar sized petrol car the price was still steep.

The other extreme was a large car with a large price tag and a large range. From a technical point of view, this is the logical choice. However, it means that driving electrically becomes a privilege for the happy few.



Price

Technology constantly improves and batteries keep getting better. At the same time new alloys have been developed to improve weight. This is why this was the ideal moment for Renault to create an electric car that is hardly any more expensive than a traditional compact car.

Be aware that there is a catch: Zoe comes without

batteries. They have to be rented. The price of the rent plus the electricity is still lower than that of petrol, but it is something to keep in mind. Another "gotcha": because of the wear and tear of the batteries, every time they are charged at high speed another 2 euro have to be paid to Renault.

The upside of this construction is that Renault takes responsibility for maintaining and replacing the batteries if capacity diminishes.



Caméléon

In recent years many technologies have come to the market to charge electric cars. The easiest way to charge is to use a basic home socket. For quick charging, a special home charger can be installed. In addition to that, all over the country special high-power charging points have been installed.

Zoe is the first to support all chargers: 3 kW, 22 kW, 43

kW, AC and DC; the "Caméléon" can handle them all.



There is one huge exception: Zoe cannot be charged using a home socket. According to Renault this takes too much time and there's a risk involved when customers use extension cords and other household appliances to distribute the power. As far as Autozine is concerned this is a bad choice: it is better to charge a car for 16 hours than to stall on the highway.

Design

Zoe shares its platform with the Renault Clio. To offer maximum safety and cabin space, the Zoe is much more than an "altered" Clio. To cope with the weight of the batteries (250 kg) Zoe shares its underpinning with the much bigger Renault Megane. The batteries are installed in the floor around the centre of the vehicle for optimum weight distribution.

The location of the batteries means that the boot is big and practical (38 litres more than the Clio!). Zoe is a four person car with ample space in the front and rear. There are a few telltale signs where Renault has economised. For example, the front seats and seatbelts are not adjustable in height, and that can be annoying.



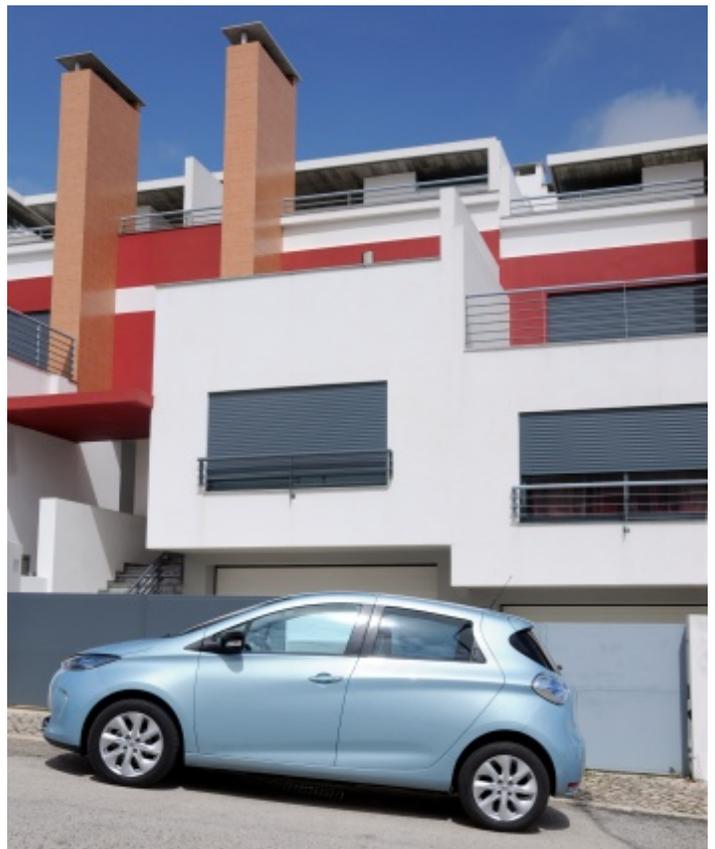
The design, colours and materials in the cabin make for a special ambiance. Do keep in mind that the light dash ("Zen" version) can reflect in the windscreen. Despite the special design, the Zoe offers all the luxury and safety that can be expected from a car in this price range. A smart detail: the heater isn't an energy guzzling "glow spiral" but instead an efficient "heat pump".



Every Zoe comes with "R-Link": Renault's combined audio, navigation and communication system. This also comprises a function to analyse the driving style to improve efficiency. R-Link knows all public chargers and can incorporate them in a route when the destination is out of battery reach.

Driving

Just like every other electric car, Zoe offers more comfort than a traditional car. The electric motor only produces a slightly audible high pitch, while the tyres and wind cannot be heard at all. The engine doesn't cause any vibrations either. Driving with Zoe is as relaxing as travelling with a large limousine.



Zoe doesn't have a gearbox: the electric motor has such a large rev range that it is torque strong (80 PS / 220 Nm) no matter what the engine speed. No matter what speed, Zoe always has enough power to accelerate. In city traffic Zoe feels most at home: she accelerated faster at the traffic lights than everyone else, and thanks to her slender body she cuts through traffic like no other.

Yet, Zoe feels most at ease in the hands of a calm driver. Zoe weighs almost a ton and a half, which is much more than a regular car. In the city Zoe's overweight is hardly noticeable, here she's even

playful and daring.



When cornering (too) fast the bespoke "Michelin Energy EV" tyres struggle with Zoe's weight. On speed bumps the rather hard dampers still don't manage to stop the bodywork from bouncing back. During an emergency stop the long braking distance also makes it painfully clear that Zoe carries some extra weight.

Range

Thanks to the high comfort levels, it is easy to forgive Zoe for her overweight. Yet Zoe is troubled by the same problem that troubles every electric car: limited range. To extend the range, Renault uses the latest battery technology (lithium-ion) and improves efficiency by optimal aerodynamics. When the throttle is released, Zoe converts kinetic energy into electricity.



In theory Zoe can travel 210 km on a fully charged battery. Weather conditions, use of accessories (heater / aircon) and driving style strongly influence the actual range.

When trying to drive as efficiently as possible, 160 km could be covered on a single charge. This makes Zoe only usable as a city car or second car in the household. And that's a shame, because once one you get to know Zoe you want to take her everywhere everytime.



Conclusion

Renault introduces Zoe: a real heartbreaker. Those who seek maximum horsepower and roaring engines won't be seduced by Zoe. Those who care for the environment and/or their wallets, will feel strongly attracted to Zoe. Thanks to the electric motor Zoe is cheaper to run than most conventional cars and, as an added bonus, comfort levels are higher as well. How environmentally friendly Zoe is depends on her power source (solar panel, nuclear plant, coal, etc.).

Zoe is not groundbreaking in any way and suffers from the same limitations as other electric cars. Zoe does incorporate the latest technology. This makes it easier to drive efficiently and handling is even better than usual. On top of that the cabin is roomier while the price is lower. And Zoe has one extra feature: a charming personality. ■



Specifications

Renault Zoe Dynamique Intens

Size and weight

Length x width x height	408 x 173 x 156 cm
Wheelbase	259 cm
Kerb weight	1.403 kg
Trailer	unknown
Trailer - braked	unknown
Fuel capacity	unknown
Luggage space	338/1225 l
Tyre size	195/55R16

Engine and performance



Capacity	unknown
Cylinders / valves	unknown
Max power	88 PS @ 1 rpm
Max torque	220 Nm @ 1 rpm
Drive	front wheels
Acceleration 0 - 62 mph	13.5 secs
Top speed	135 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£ 15,195
Price base model	Â£ 13,995