

# Electric driving!

## On the road with an electric car

Electric driving. Is that very different from driving a petrol or diesel car? The biggest difference is in the charging of the car and the range. We explain what that means and what you should know when choosing an electric car.

Before choosing an electric car, it is useful to know a few things in advance. In the following paragraphs we explain which charging methods are available, what the car's range means, the costs involved in electric driving, the charging infrastructure in the Netherlands and abroad, which electric vehicles are currently on the market and the top 5 tips for driving an electric car.

### Ways of charging

The biggest difference of electric driving compared to driving a fuel car is the charging of the car. Electric cars need to be charged more often. There are several ways of charging:

- Normal charging, via:
  - Charging point at home, on own property (private);
  - Charging point in the neighbourhood, via municipality or company (public).
- Fast charging, often at motorway service stations. Not all electric vehicles are suitable for this.<sup>1</sup>

With normal charging, the charging station supplies alternating current, which is then converted by the charger in the car to direct current for the battery. With fast charging, the charger often supplies direct a direct current, thus charging the battery directly (and faster) charges.

The differences between private, public and fast charging:

	Private charging	Public charging	Fast charging
Charging	Up to 100%	Up to 100%	Up to 80%
Cable	Own cable	Own charging cable	Cable to charging station
Battery charging	Via charger in the car	Via charger in the car	Directly
Type of current	Alternating current	Alternating current	Direct current
Capacity	From 3,7 kW	Max 11 or 22 kW	Up to 350 kW
Costs (indication)	0,40 cent/kW	0,50 cent/kW	0,75 cent/kW



<sup>1</sup> See for which cars this applies on the [website of FastNed](#).

## Battery charging time

The charging time of the battery is determined by the capacity of the battery, the charging capacity of the car and the charging capacity of the charging station. A small battery often has a lower charging speed than a car with a larger battery. How fast the battery can be charged and how far you can drive with it after a certain time, depends on the type of car. More information on charging the car can be found on [our website](#) (Dutch).

**Tip:** When selecting a car, compare the capacity of the battery and the charging capacity of the different vehicles.

The charging time of the car can be roughly calculated by dividing the battery capacity by the charging capacity. For example, with a usable battery capacity of 33kWh and a standard charge capacity of 11kW, the charging time is about 3 hours (33kWh/11kW). If the maximum charge at a charging station is 3.7kW, the charging time is 8 hours and 54 minutes (33kWh/3.7kW).

## Range

The range of a car stands for the number of kilometres a car can cover with a fully charged battery. On average, this is about 330 kilometres. For longer distances, it is therefore wise to map out the journey in advance and look at the various charging options (on the road).

**Tip:** Pay attention to the range when selecting a car. Check whether the range allows you to make your daily trips, where the car can be recharged and whether the car can be recharged on time. Also consider the less frequently daily trips: is the car suitable for these as well?

## Charging infrastructure

In The Netherlands, the charging infrastructure is now well organised, but this may differ abroad. Do you often go abroad? Then check in advance where the car can be recharged. Also bear in mind that charging points may be occupied or out of order.

## Pros and cons of electric driving

These are the pros and cons of electric driving:

- ✓ Better for the environment because no CO<sub>2</sub> is emitted.
- ✓ In the long run, more economical, both in terms of electricity consumption and purchase.
- ✓ More silent.
- Charging takes longer than refuelling and higher frequency.
- Charging infrastructure still under development.
- Batteries are not environment-friendly, they are expensive and their lifespan is still unknown.

## Top 5 tips for driving an electric vehicle

1. Charge the car as soon as possible. Regularly shorter charging provides more energy than longer charging.
2. Check in advance the charging options on the route or at the destination.
3. Be aware of your braking behaviour. The car charges the battery with energy that is released when braking on the engine.
4. Heat or cool the car while charging. Heating and air conditioning use energy and can reduce the range. If you pre-heat or cool the car, i.e. during charging, then this energy is not lost.
5. Adjust your speed slightly downward and maintain a constant speed. For example, 120 km/hour compared to 100 km/hour uses 15% more electricity.

**More information?** Would you like to know more about electric driving, or advice on applying for a charging station. Or would you like to make an appointment? We are happy to help you. You can contact us by phone on working days (088 – 088 0525) or send an email to [sales@multilease.nl](mailto:sales@multilease.nl).

