



THUNDERGRID

A Landis+Gyr Company

EV CHARGING 101

Charging your Electric Vehicle (EV) is similar to filling your car with fuel, but instead of petrol, the EV battery fills up with energy in kWh (kilowatt hours).

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EV CHARGING GENERAL

AC Fast Charger

Your Inch Pro is a tethered model which means it comes with a charging cable attached permanently. It has a type 2 plug that looks like this:

TYPE 2



INCH PRO



DC Fast Charger 25 kW

Your Delta DC fast charger has two outlets one is a CSS plug, and one is a CHAdeMO plug.
Note: Only one connector can be used at a time.

CSS



CHAdeMO



DELTA



HOW DO I CHARGE?

- Open the car's charge port cover (location will vary depending on the vehicle model)
- Remove the charging cable from the charger and insert it into your vehicle's charge port
- Your car or/and your app will tell you about the current charge status of your battery
- Finish charging by unlocking your car and unplugging the cable

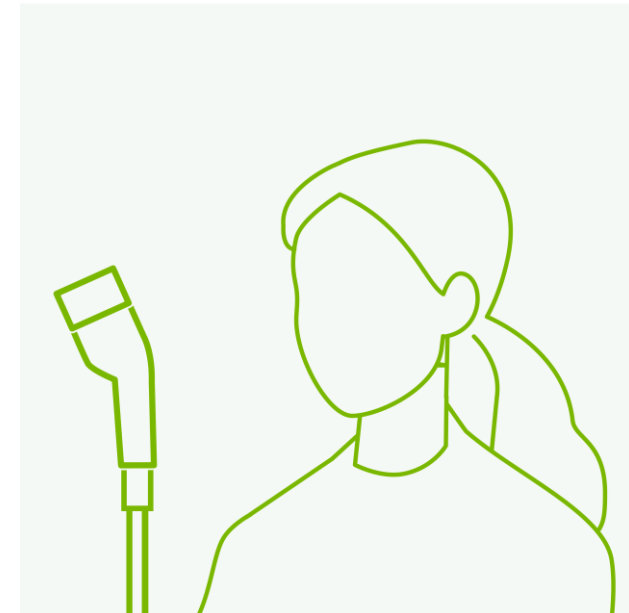


HOW LONG DOES IT TAKE TO CHARGE MY CAR AND HOW FAR DO I GET?

- EVs can have various battery capacities and therefore different ranges. Using your Inch Pro charger, you can estimate (depending on your vehicle type) the following charge times:
- AC charging Inch Pro – 40-120 km/hr recovery time depending on vehicle type and how many other cars are charging at the same time
- DC charging Delta 25kW – about 140 km/hr recovery time

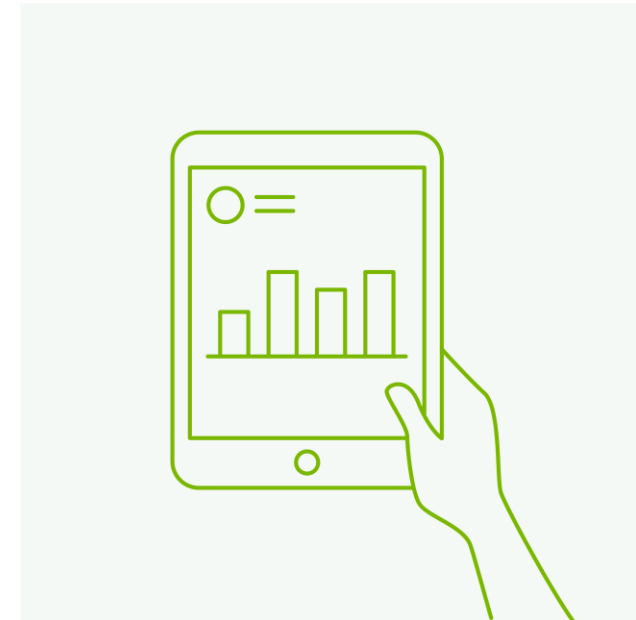
Note:

- When out on the road and charging your EV at a public DC rapid charger, you can usually add a range of 100km in about 15-30 minutes



HERE ARE SOME EXAMPLES

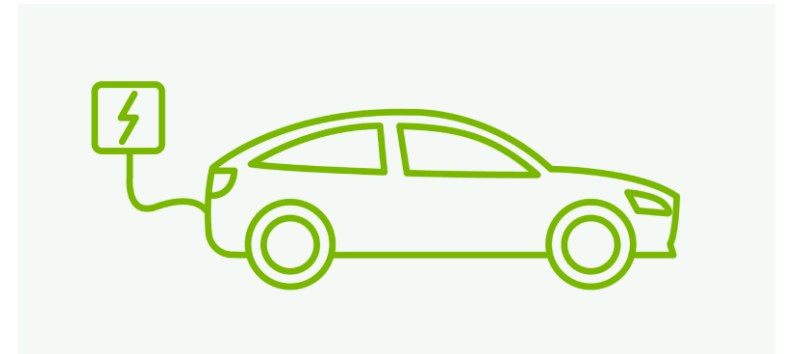
- If you know, e.g. your EV can run at 7 kilometers per kWh and has a 64kWh battery, you can calculate your kilometer range by multiplying $7 \times 64 = 448$, so a total range of 448 kilometer to go
- The Hyundai Ioniq 5 or the Hyundai Kona Electric have a total kilometer range of 484km. It takes 75 minutes on a DC fast charger to fully restore the battery
- The driving range of the Tesla Model 3 or the Tesla Model Y Driving is up to 455km. We suggest planning for 430km on a 100% charge or 300kms on an 80% charge



SOME USEFUL TIPS

Driving distances will vary depending on various conditions:

- Temperature: Extreme hot or cold weather will reduce the driving range
- Using the air conditioning or the heating on full fan speed can significantly drain the battery
- Large hills, fast driving or quick acceleration will reduce your overall range
- Load: the weight and wind resistance from additions like trailers and roof boxes will impact range
- Driving style: driving in a less halting style will help preserve energy

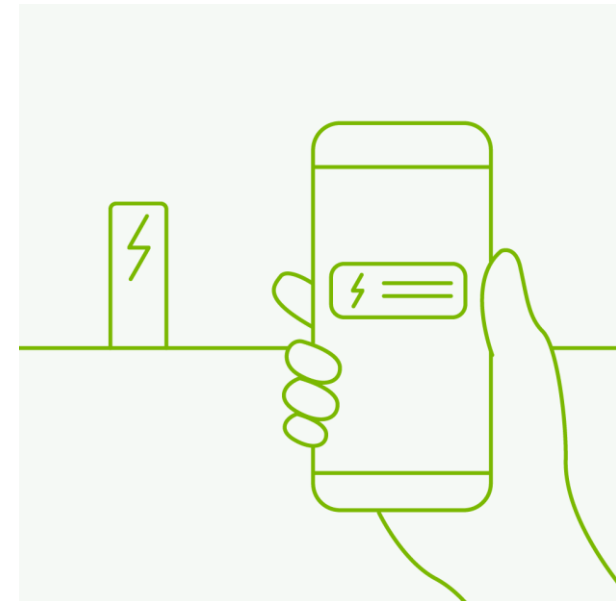


SOME USEFUL TIPS

Your EV display screen will show you specific information related to battery charge and driving range of your model. Understand your EV, know your range and plan your route accordingly.

So called ‘regenerative braking’ captures the energy from the process of slowing down a car and uses it to recharge the battery. That’s why city driving with more frequent need of breaking usually gives you a higher driving range.

You can also enable the automatic ‘regen braking’ and the car will automatically detect the environment and situation and apply the appropriate level of regenerative braking.





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LIGHTENING



THE



LOAD

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