



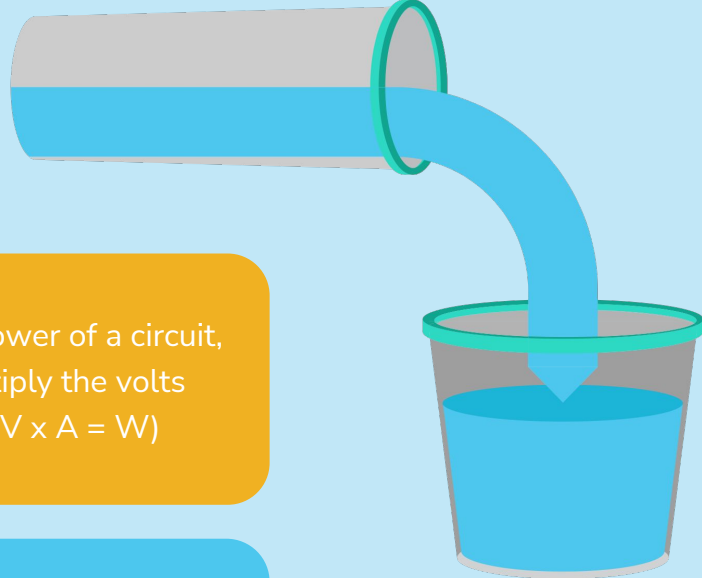
EVBox Troniq Modular

Product Deck

What is DC charging?

Understanding electricity

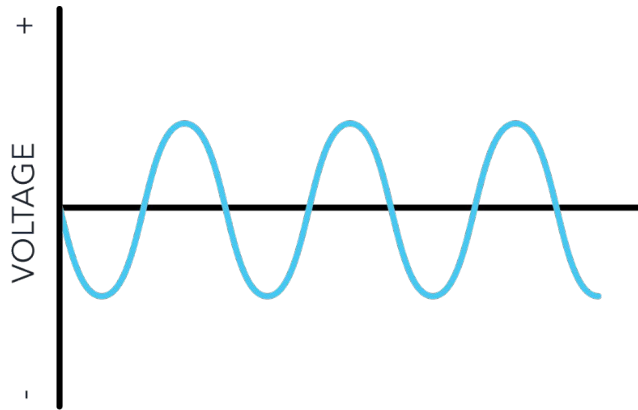
- **Voltage** is like the pressure that pushes water through the hose. It is measured in volts (V).
- **Current** is like the diameter of the hose. The wider it is, the more water will flow through. It is measured in amps (A).
- **Power** is the how much water can move through the hose per second and is measured in watts (W).
- **Energy** is how much water is consumed or stored per hour and is measured in watt hours (Wh)



To calculate the power of a circuit, you simply multiply the volts by the amps. ($V \times A = W$)

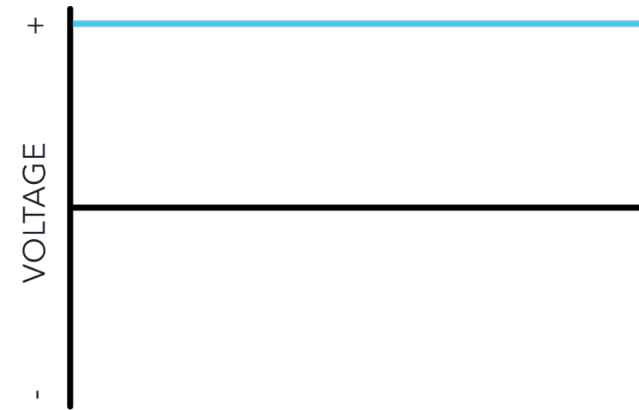
To calculate the energy, you multiply the power (W) by the number of hours (h). ($W \times h = Wh$)

Understanding electricity



AC (alternating current)

↳ Electricity grid

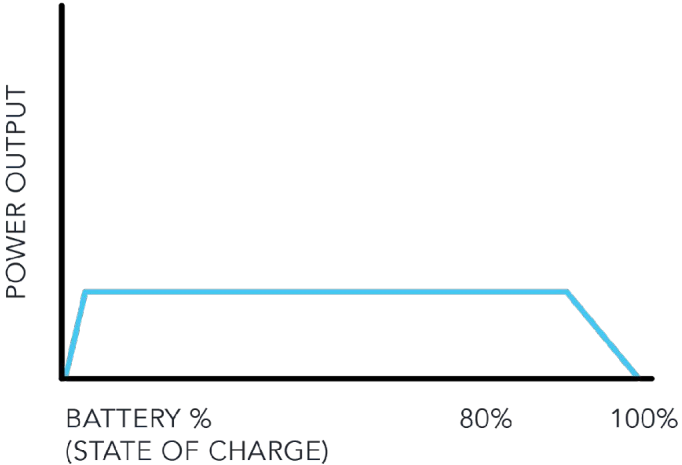


DC (direct current)

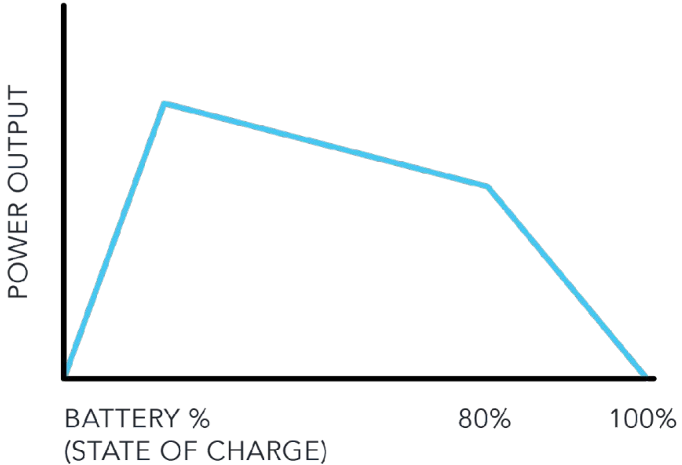
↳ Battery

AC and DC charging

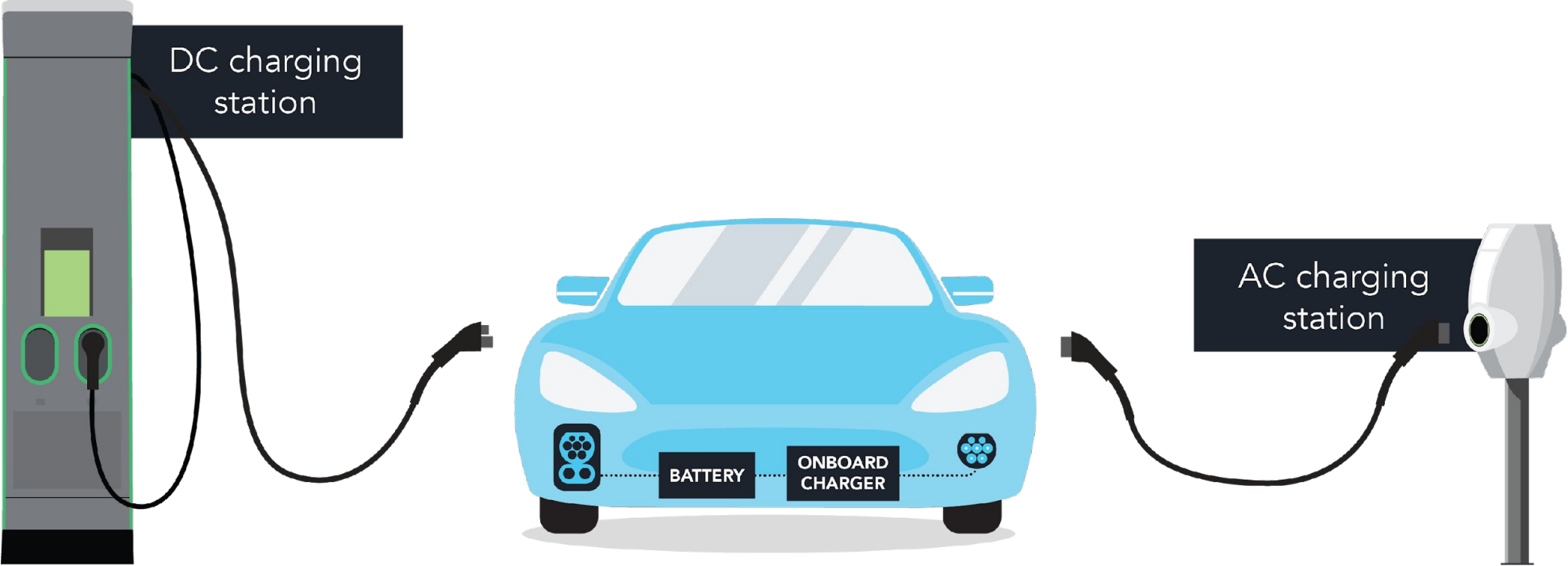
AC charging station



DC charging station

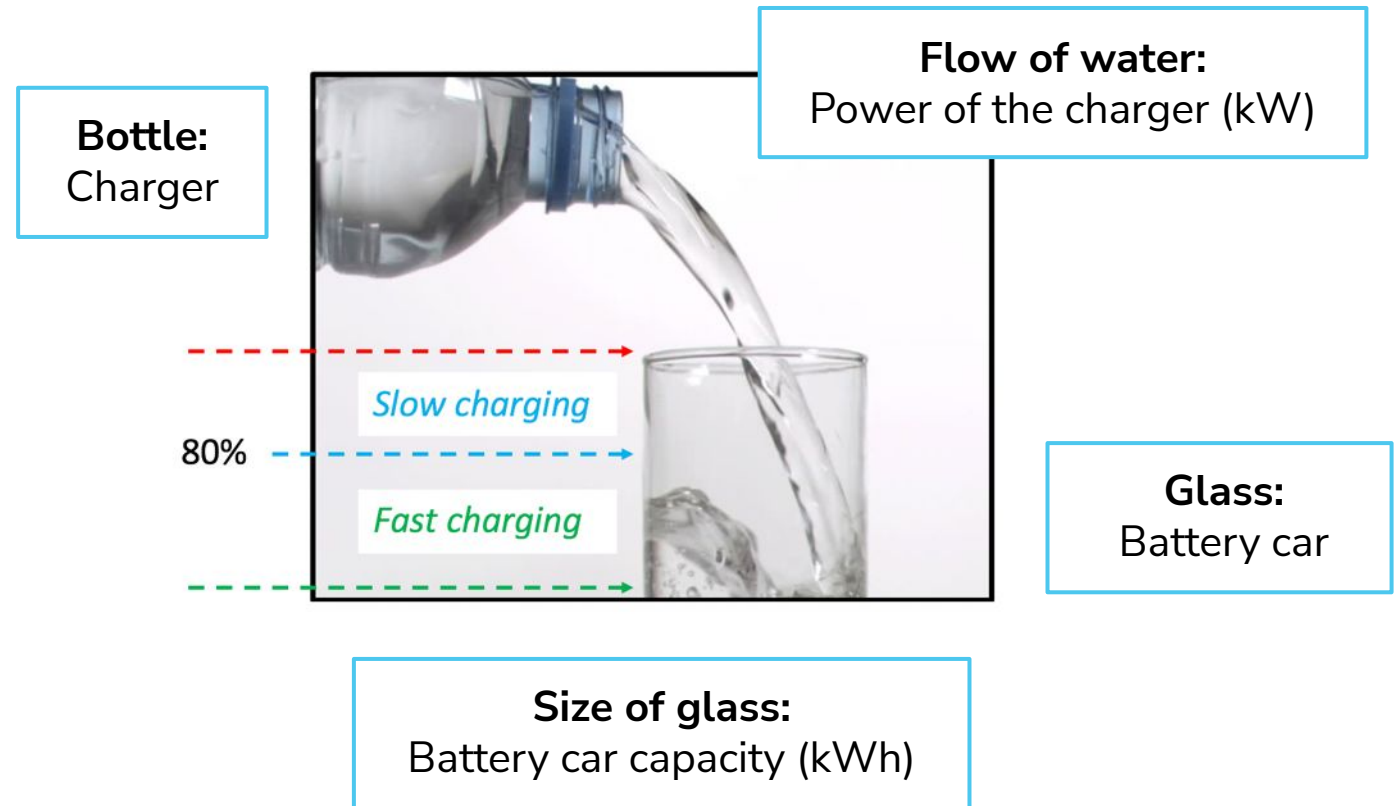


AC and DC charging



DC charging 101

Below, see an analogy between DC charging process and a glass of water filling up.



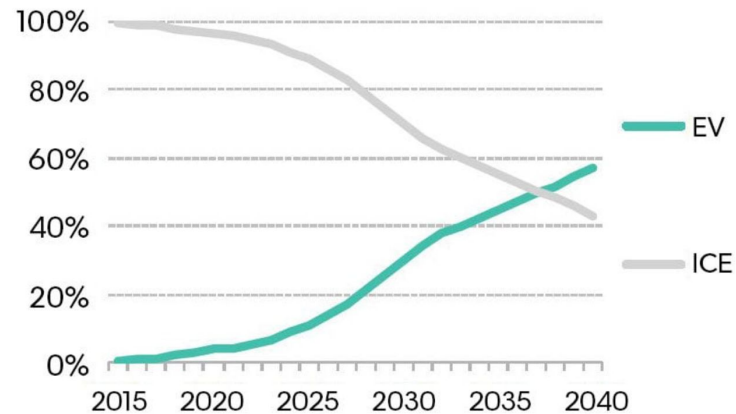
Why EVBox Troniq Modular?

Vehicles are going electric

Share of combustion engine (ICE) car sales will be cut by half in less than 20 years.

Global EV and ICE share of long-term passenger vehicle sales

Share of annual sales



Source: BloombergNEF

EV sales

Passenger EV sales jumped from 450,000 in 2015 to 2.1 million in 2019. They will drop in 2020 before continuing to rise as battery prices fall, energy density improves, more charging infrastructure is built, and sales spread to new markets.

2020

1.7 M

2025

8.5 M

2030

26 M

2040

54 M

Habits are shifting

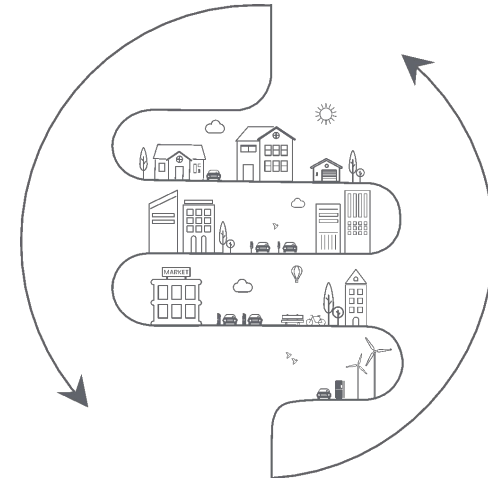
Old habit

From searching for petrol stations...



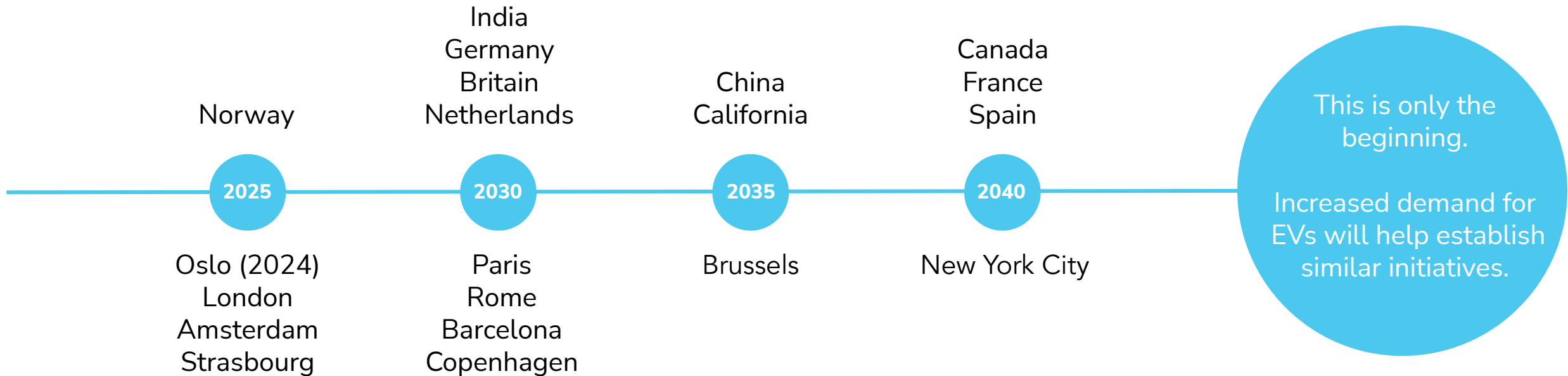
New habit

to charging wherever you park.



Policies are changing

Key regions are committed to banning the sale of ICE cars.



Our starting point



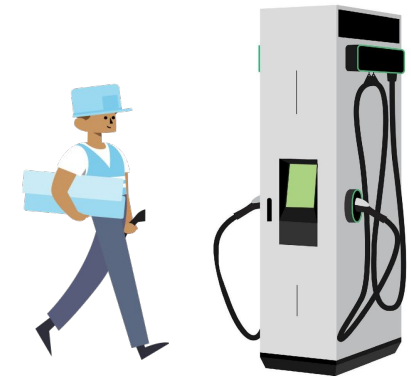
Site owners

- Maximize their revenue
- Operate stations at a predictable costs
- Provide customers with the best possible experience



EV drivers

- Reliable fast charging solutions
- Hassle-free charging sessions

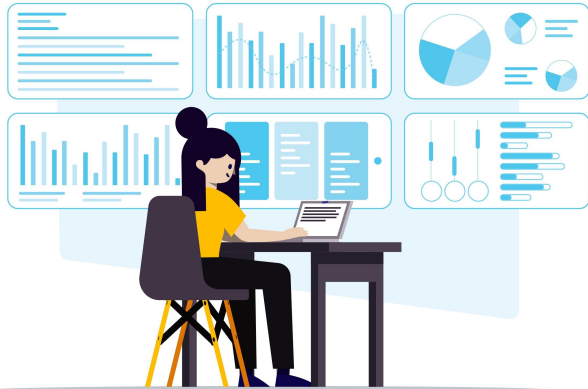


Installation partners

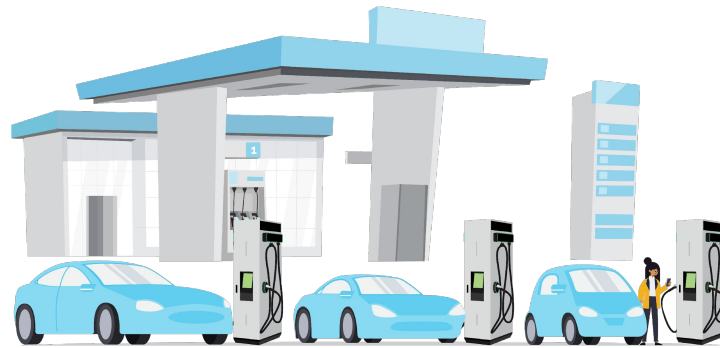
- Minimize their service time and maximize their revenue
- Work with stations that are easy to install and maintain

EVBox Troniq Modular

The powerful charging station that grows with your business.



Built to
maximize revenue



Optimized for
every location



Easy for a business
and its customers

**How are we going to
deliver on this promise?**

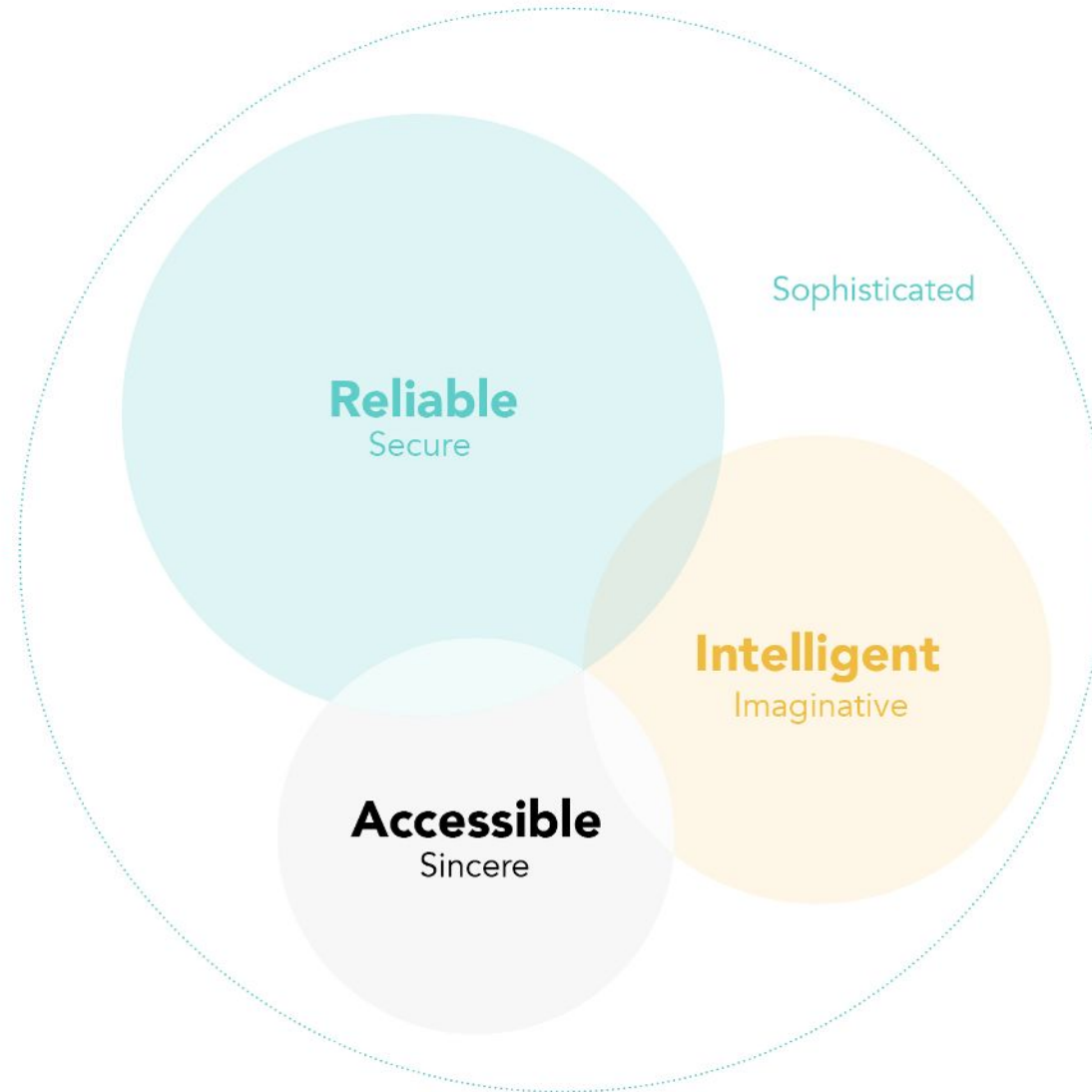
SHOPPING
CENTER

EVBox Troniq Modular

The powerful charging station that grows with your business

Product DNA

Keeping the promise





EVBox Troniq Modular

Built to maximize your revenue

Modular architecture

EVBox Troniq Modular uses upgradeable power modules that can work independently. This allows your charging station to continue serving customers and drivers in the rare case that an individual power module ceases to function optimally.



Redundancy of power modules



Easy to install and maintain

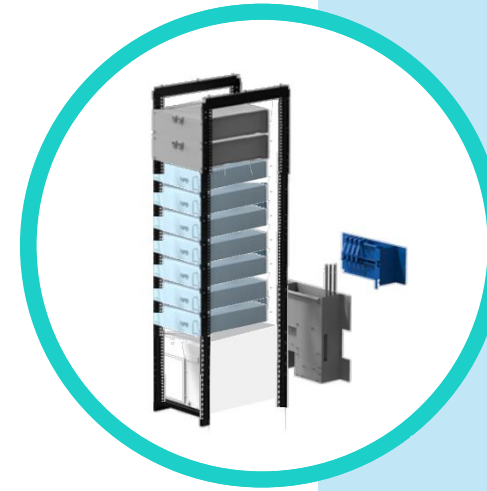
EVBox Troniq Modular's architecture allows its components to be maintained and replaced easily. Because of its modular design, EVBox Troniq contains fewer components meaning shorter installation and maintenance time.



Decreased number of components





Decreased module replacement time



Powerful output

EVBox Troniq Modular serves your customers around the clock thanks to upgradeable power modules that can be combined to deliver up to 240 kW. What's more, each EVBox Troniq can be equipped with up to two CCS2 500 A cables to deliver high-power safely.

-  Powerful output up to from 90 kW up to 240 kW
-  CCS 2 up to 500 A / CHAdeMO up to 125 A



Bundled for reliability

EVBox Care plans consist of a range of packages offering unique combinations of services designed to maximize the performance of your EVBox Troniq at a predictable cost to your business.



Care plans



Comprehensive network of certified service partners








EVBox Troniq Modular

Optimized for every location

Optimized for every location

Every EVBox Troniq Modular enables a variety of smart charging features that allow you to efficiently utilize your location and save on costly grid upgrades.

-  Load balancing
-  Set maximum amperage per site
-  Priority strategies



Why smart charging matters

- Most locations have less power available than the sum of nominal power from their charging stations.
- Site owners want to prevent costly grid upgrades.
- Charging output needs to be versatile as different EVs have different power requirements and charging behaviors.





EVBox Troniq Modular

Easy for your business

Scalable architecture

EVBox Troniq Modular offers upgradeable power modules that help your business grow as demand for EV charging increases. Starting at 90 kW, you can add 30 kW power modules to deliver up to 240 kW of power.

 Upgradable power modules in 30 kW increments




 Grow your charging network on demand



OCPP Compatible

EVBox Troniq Modular can be equipped with up to three connectors: CHAdeMO, CCS 2, and AC Type 2, making it compatible with every EV on the market.

Thanks to our OCPP-compliant firmware, you're able to connect EVBox Troniq Modular with the backend of your choice—in consultation with an EVBox representative.

-  Any EV (Up to 500 A and 920 V)
-  Any OCPP-compliant backend
-  Ethernet and 4G/LTE connectivity



Simultaneous charging

EVBox Troniq Modular can charge two or three vehicles at the same time, allowing you to better utilize your existing space.



2 DC cables on the side and an AC socket* at the front



Simultaneous charging for up to 2 or 3 vehicles

*AC socket coming soon

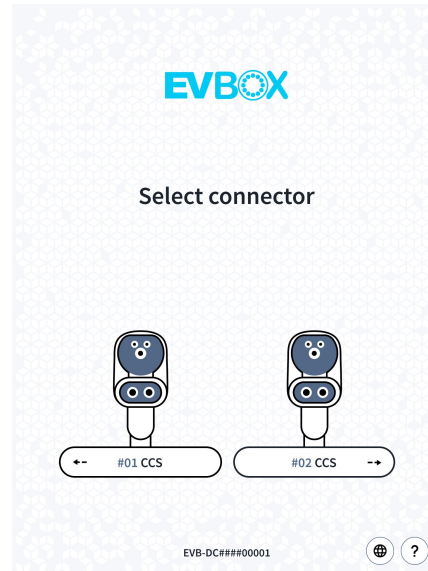


Make it yours

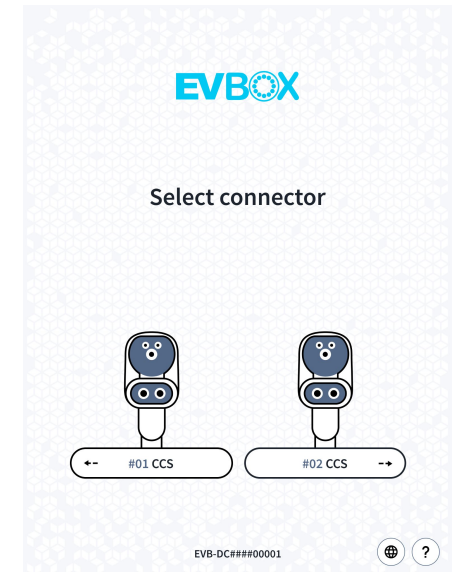
Easy-to-brand design



Your own user interface*



Co-branded user interface* with your partner



* New UI coming soon with over-the-air software update



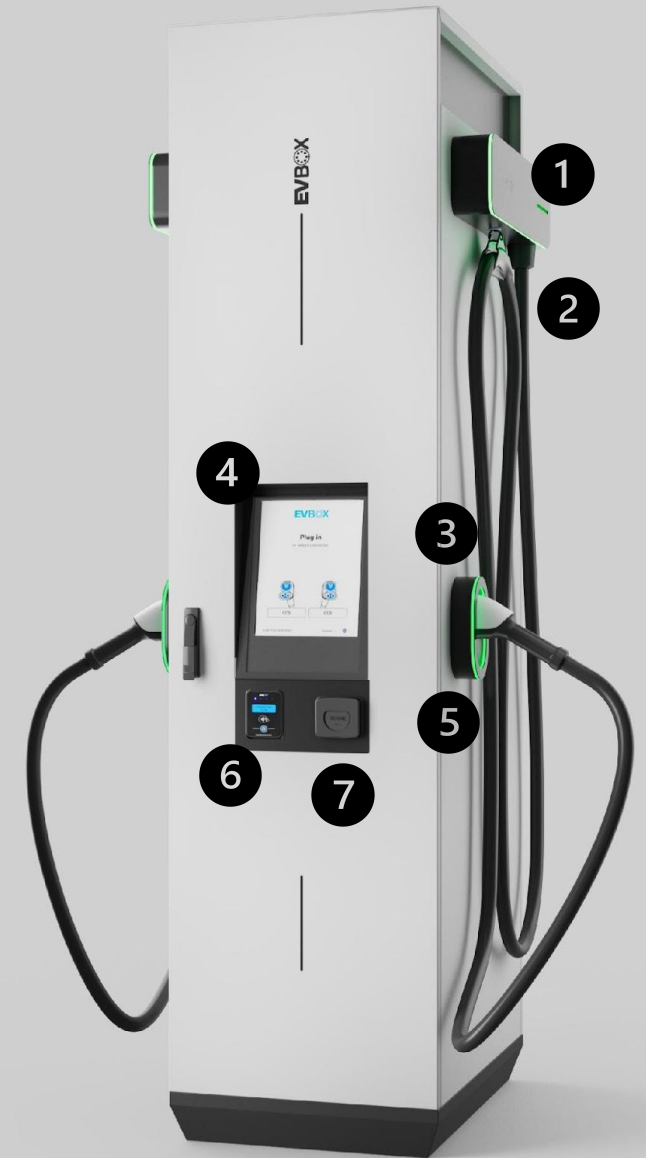
EVBox Troniq Modular

Easy for your customers

Easy for your customers

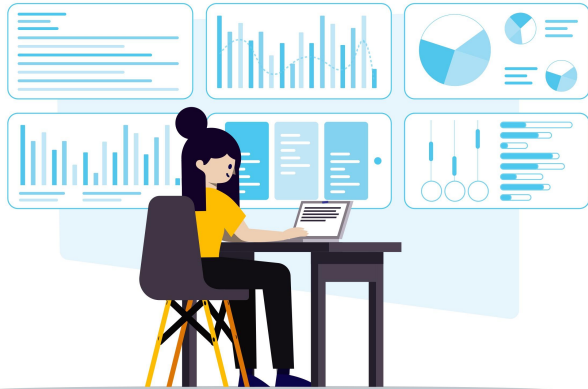
EVBox Troniq's large multi-language touchscreen, intuitive status indicator lights, and ergonomic auto-retractable cables makes charging easy for everyone. Thanks to the height of the display and charging plugs, EVBox Troniq is accessible to wheelchair users.

- | | |
|---------------------------|------------------------|
| 1 Guiding LED Side Lights | 5 CCS2 or CHAdeMO |
| 2 Cable Management | 6 EMV Payment Terminal |
| 3 LED Charging Indicators | 7 AC Type 2 Socket |
| 4 15" Touch Screen | |

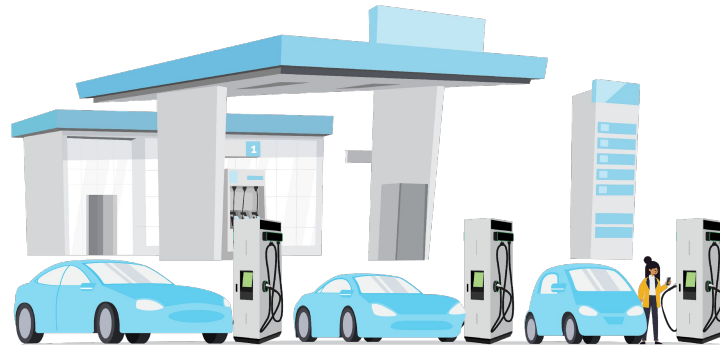


EVBox Troniq Modular

The powerful charging station that grows with your business.



Built to
maximize revenue



Optimized for
every location

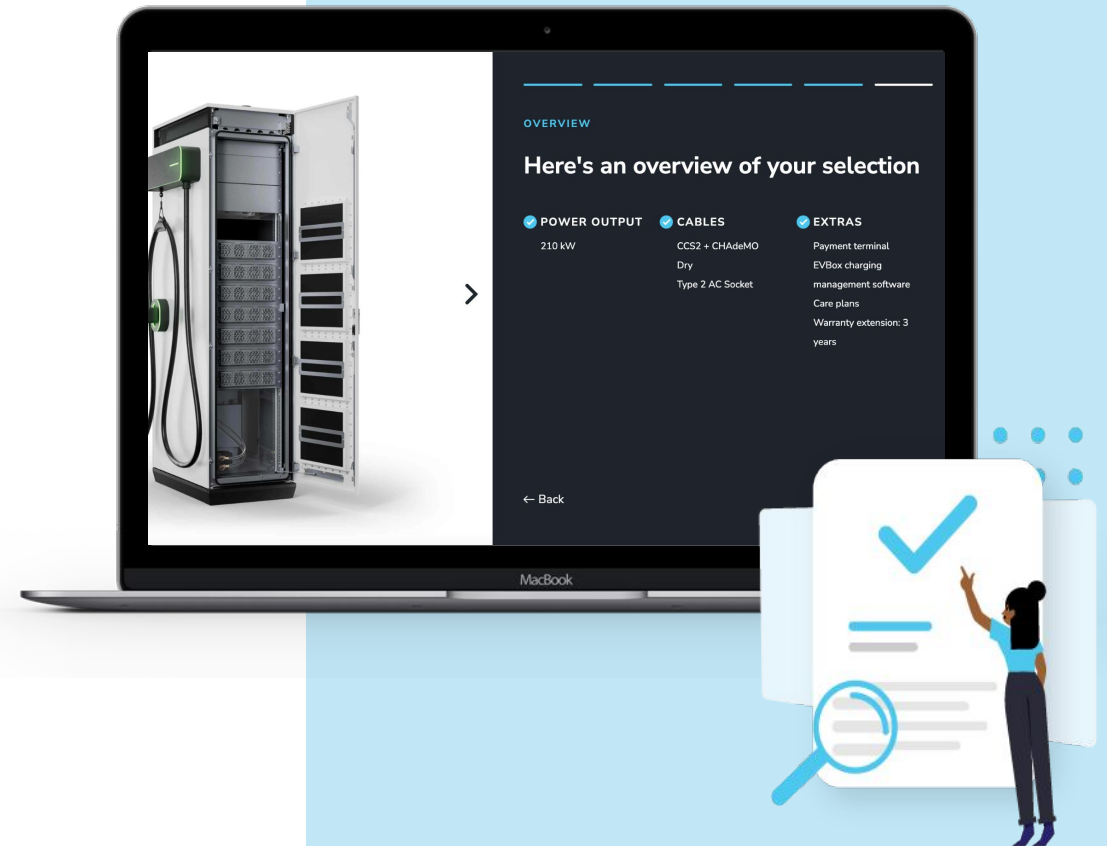


Easy for a business
and its customers

EVBox Troniq Modular product configurator

Thanks to its modular architecture you can configure EVBox Troniq Modular to fit your business model and location.

Customize your EVBox Troniq Modular with our product configurator



What is EVBox Troniq Modular?

A vertical stack of server racks in a data center. The racks are dark grey with green perforated front panels. The text "Tech specs" is overlaid in white, bold font in the center of the image.

Tech specs

EVBox Troniq Modular

ENCLOSURE MATERIAL	Powder coated steel
CHARGE MODES AND CONNECTOR TYPES	CCS2 (500 A / 950 V) & CHAdeMO (125 A / 500 V) CCS2 (500 A / 950 V) & CCS2 (500 A / 950 V)
CABLE REACH	Cable management system with 5m reach
STATUS INDICATION	LED strips and rings charging indicators
AUTHORIZATION	RFID/NFC, App, Mac Address
PAYMENT TERMINAL	EMV (optional)
HMI	15" anti-vandalism LCD color touchscreen, configurable languages, with integrated contactless reader
COMMUNICATION STANDARD	4G/LTE, Ethernet
COMMUNICATION PROTOCOL to the backend	OCPP 1.5, OCPP 1.6s, OCPP 1.6J, ready for update to OCPP 2.0.1
COMMUNICATION PROTOCOL to the EV	ISO15118, DIN 70121, CHAdeMO 1.2
WARRANTY	2 years

Key features

Guiding LED lights

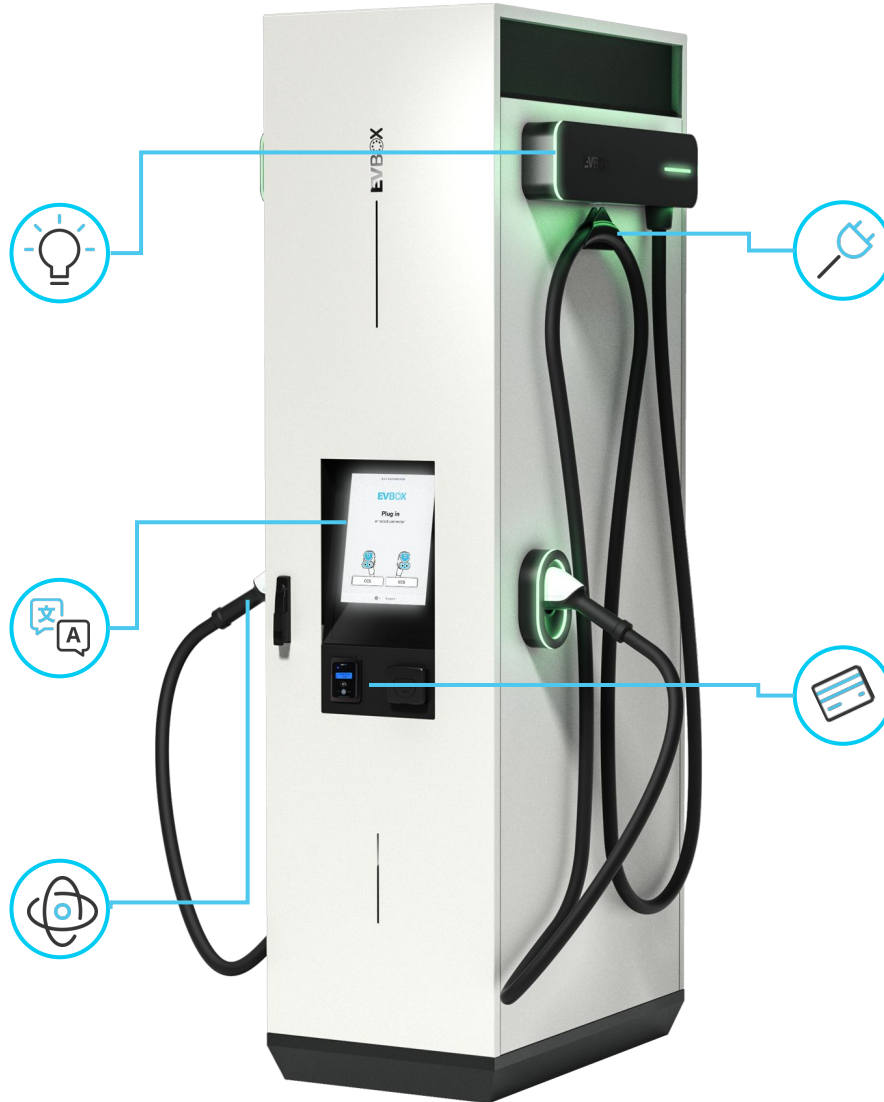
EVBox Troniq features LED status indicators that guide the user with clear, easy-to-understand information on the charging status. Plus, the powerful LED Top Lights provide better visibility for drivers searching for a place to charge at night.

15" multi-language touchscreen

EVBox Troniq features a large color touchscreen and can be operated using any of 20 supported languages.

Compatible with every EV

EVBox Troniq is equipped with three connectors: CHAdeMo, CCS 2, and AC Type 2. This makes our charging stations compatible with every EV on the market.



Auto-retractable cables

EVBox Troniq's unique auto-retractable cables—the priciest part of the station—are always kept safe and secure. With 5 meters reach, EV drivers can enjoy a seamless charging experience.

Optimal payment terminal

EVBox Troniq can be attached with an EMV credit card terminal for quick and accessible payments—in consultation with an EVBox sales representative.

*Coming soon

Integrated solution

Integrated solution

Seamlessly integrate our EV charging solution with your business.

We offer a complete EV charging solution comprised of hardware, software, and services.

Our charging stations are compatible with all EV models, easy-to-brand, and powered by intelligent software. Our stations are always installed and serviced by a certified professionals.



EVBox charging management software

Charging management made easy.

Easy, intelligent, and insightful.

Our charging management software lets you track, manage, and optimize EV charging at commercial and residential locations.



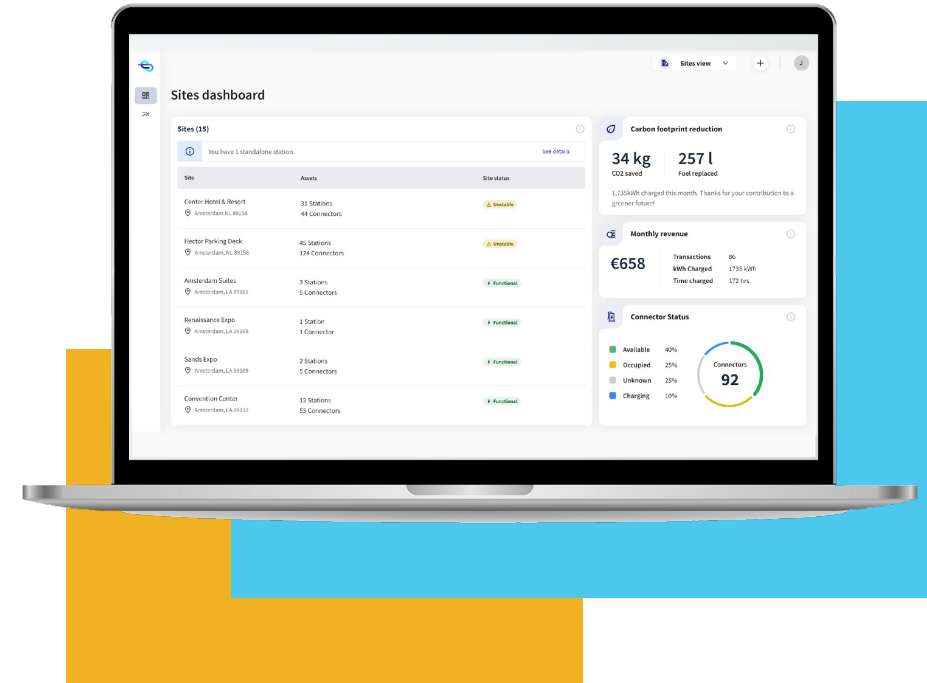
Convenient station management



Full remote control



EVBox driver app for easy payments and charging management



Software backend of your choice

Want to connect our hardware to your existing backend?
Thanks to our OCPP-compliant firmware, you can connect
our charging stations to the software backend of your
choice.



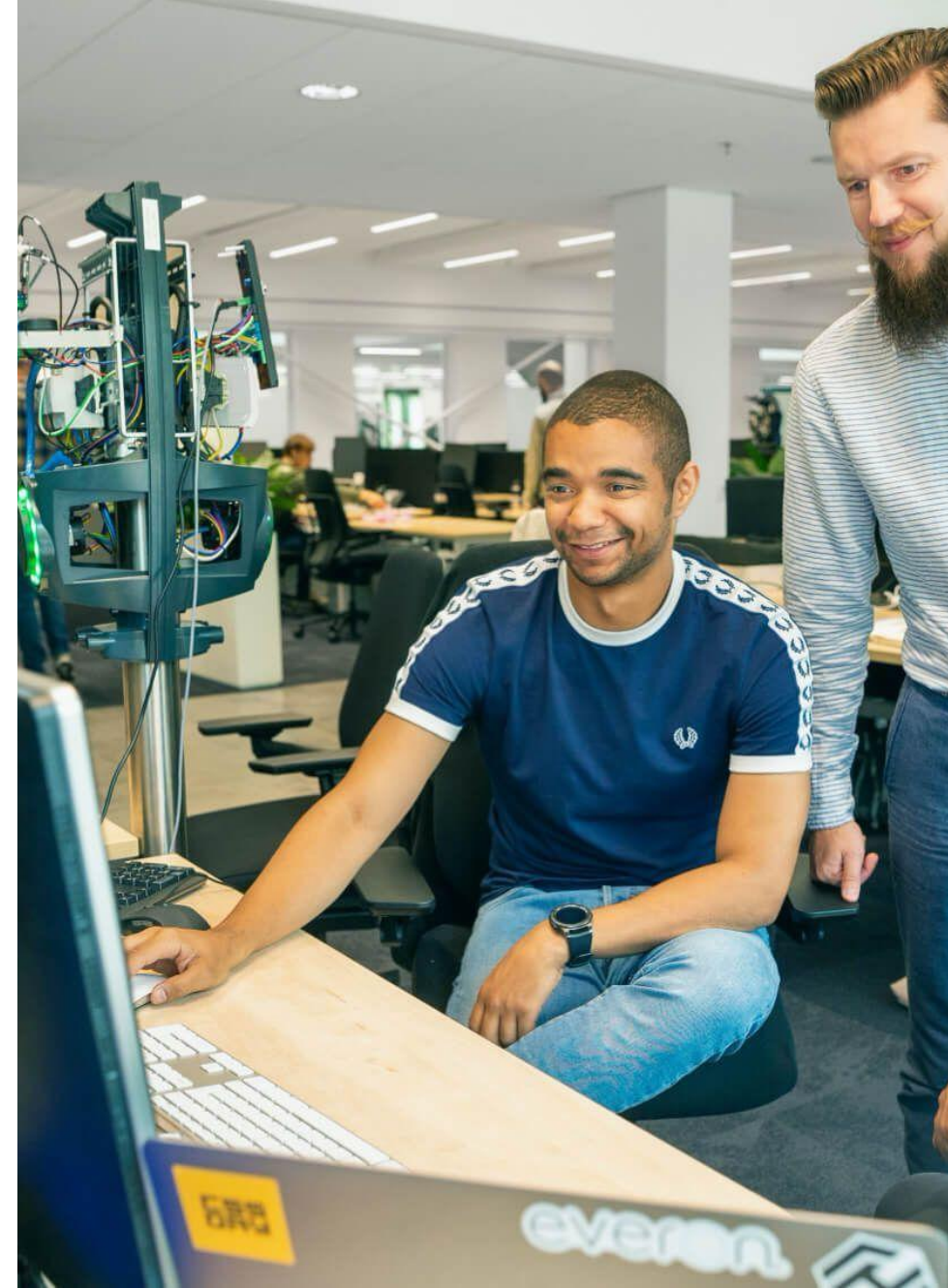
Hardware agnostic



Full white-label



Scalable solutions for the future






Care plans

EVBox Care plans offer unique combinations of services designed to boost the performance of your charging stations at a predictable cost to your business.

Each plan consists of comprehensive services such as preventive maintenance, spare parts management, quick on-site intervention. With EVBox Care plans, you can ensure your charging operation runs consistently and efficiently.

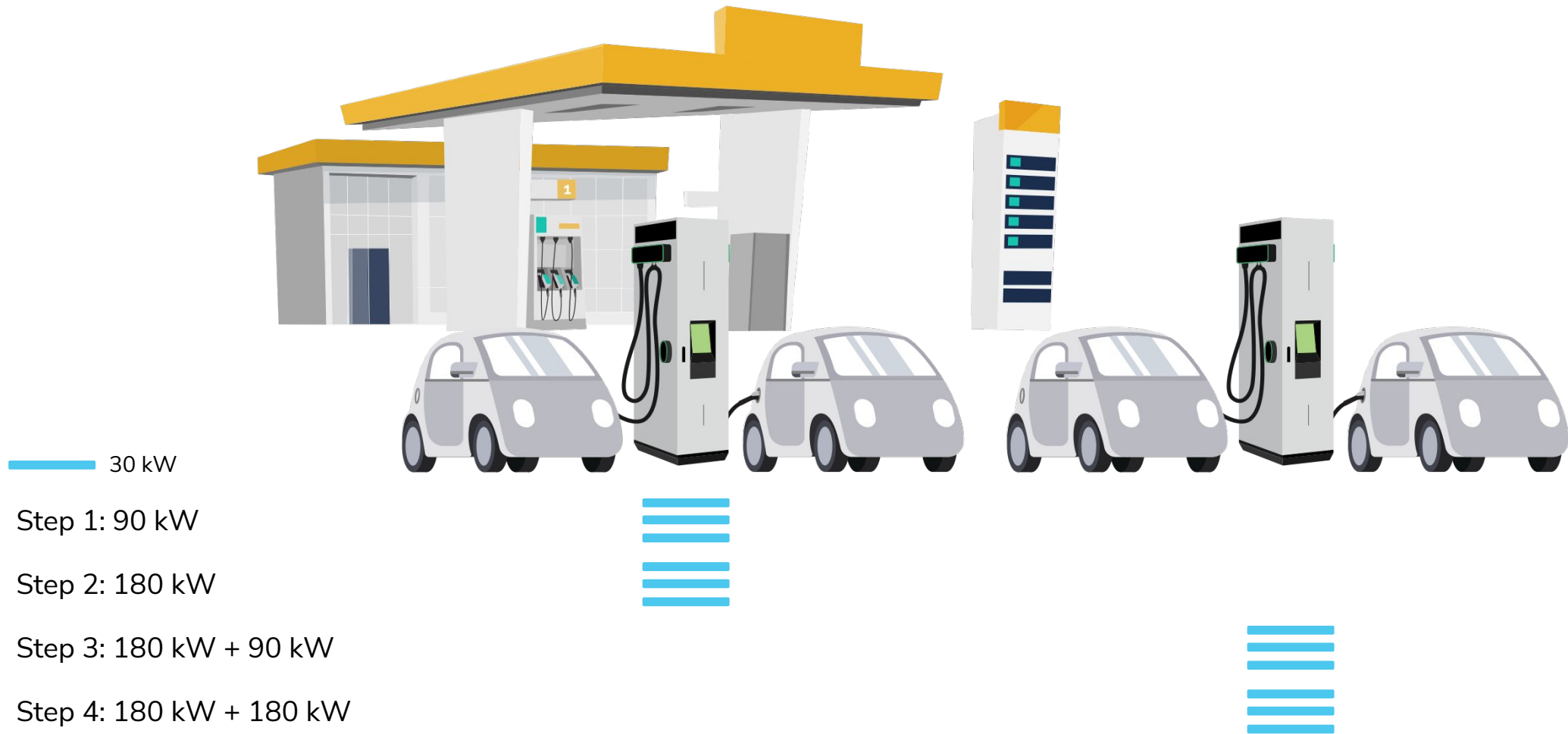
Each plan is available for two, three, or five years.

-  Spare parts management
-  Fast remote and on-site response time
-  Preventive maintenance



Scalable architecture

Scalable architecture

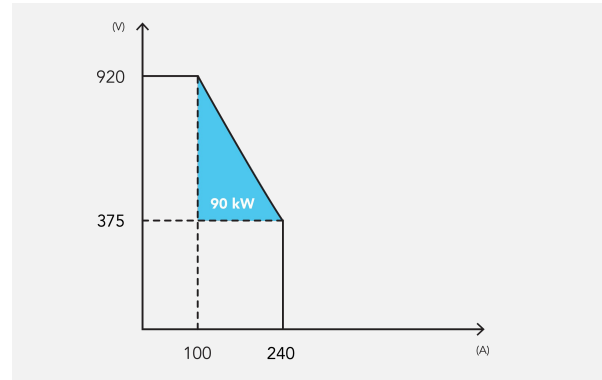


EVBox Troniq M90



DC output: CCS2

Max. 90 kW | 100 A @ 920 V
Max. 90 kW | 240 A @ 375 V

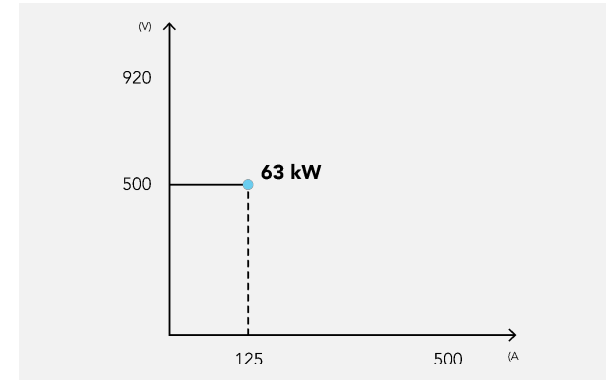


AC output: Type 2

Max. 22 kW | 32 A @ 400 V (socket)

DC output: CHAdeMO

Max. 63 kW | 125 A @ 500 V

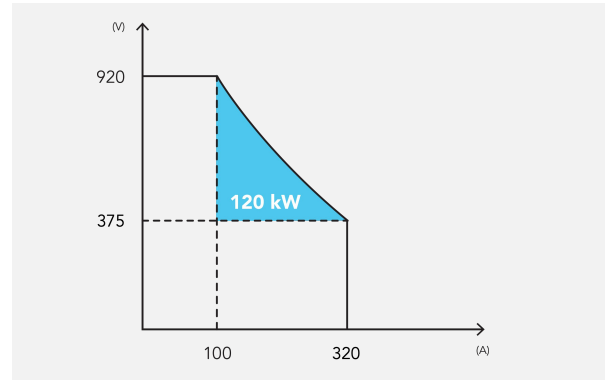


EVBox Troniq M120



DC output: CCS2

Max. 120 kW | 130 A @ 920 V
Max. 120 kW | 320 A @ 375 V

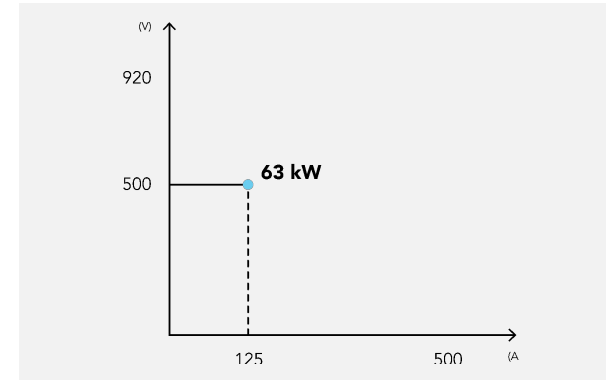


AC output: Type 2

Max. 22 kW | 32 A @ 400 V (socket)

DC output: CHAdeMO

Max. 63 kW | 125 A @ 500 V

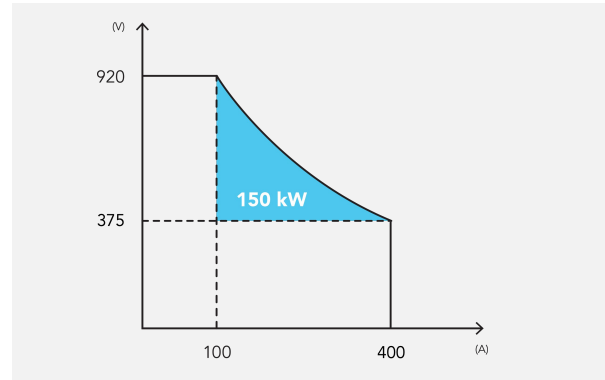


EVBox Troniq M150



DC output: CCS2

Max. 150 kW | 163 A @ 920 V
Max. 150 kW | 400 A @ 375 V

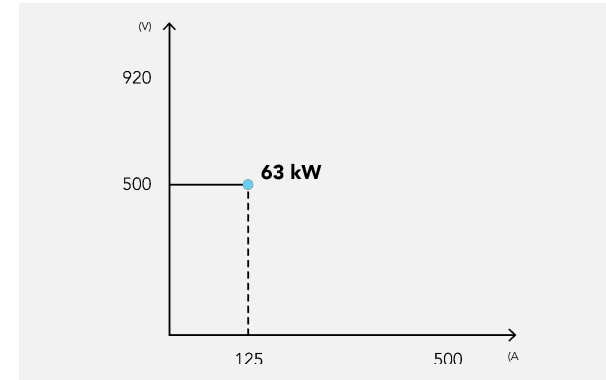


AC output: Type 2

Max. 22 kW | 32 A @ 400 V (socket)

DC output: CHAdeMO

Max. 63 kW | 125 A @ 500 V

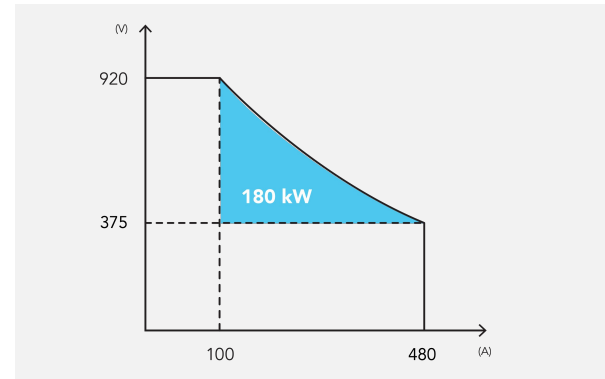


EVBox Troniq M180



DC output: CCS2

Max. 180 kW | 196 A @ 920 V
Max. 180 kW | 480 A @ 375 V

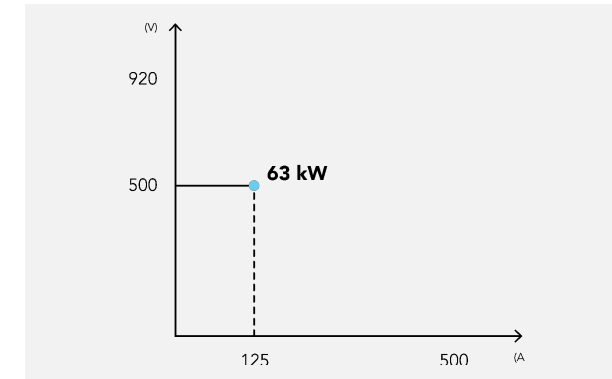


AC output: Type 2

Max. 22 kW | 32 A @ 400 V (socket)

DC output: CHAdeMO

Max. 63 kW | 125 A @ 500 V

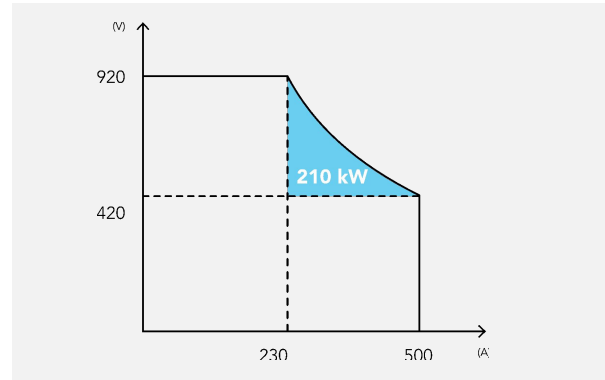


EVBox Troniq M210



DC output: CCS2

Max. 210 kW | 230 A @ 920 V
Max. 210 kW | 500 A @ 420 V

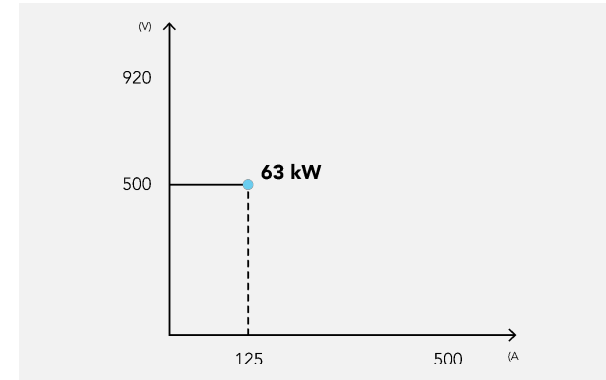


AC output: Type 2

Max. 22 kW | 32 A @ 400 V (socket)

DC output: CHAdeMO

Max. 63 kW | 125 A @ 500 V

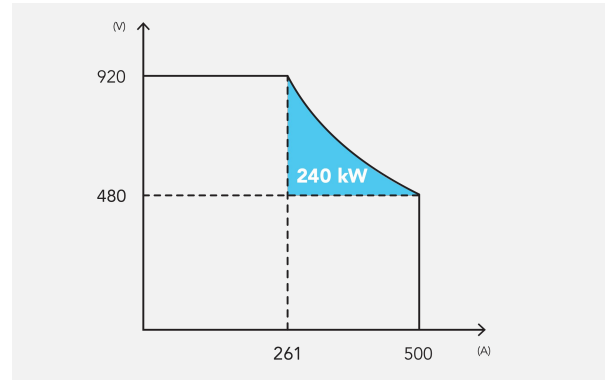


EVBox Troniq M240



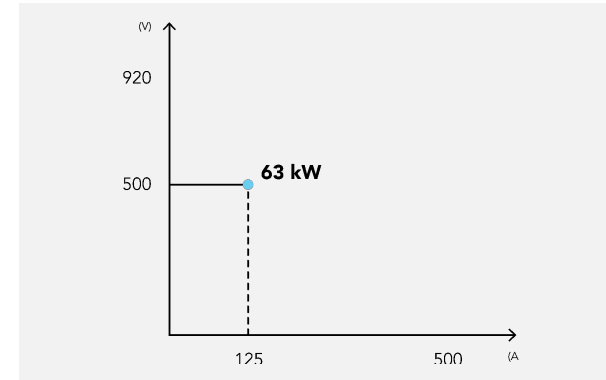
DC output: CCS2

Max. 240 kW | 261 A @ 920 V
Max. 240 kW | 500 A @ 480 V



DC output: CHAdeMO

Max. 63 kW | 125 A @ 500 V



AC socket is not available in combination with 240 kW DC output.

Simultaneous charging

Simultaneous charging



CCS2

+



CCS2

=

Two vehicles simultaneously



CCS2

+



CHAdeMo

=

Two vehicles simultaneously



Simultaneous charging



*AC socket coming soon



Cables

Cables



CHAdeMO

Max current: 125 A

Max voltage: 500 V

Cable reach: 5 m



CCS2 Dry

Max current: 500 A

Max voltage: 1000 V

Cable reach: 5 m

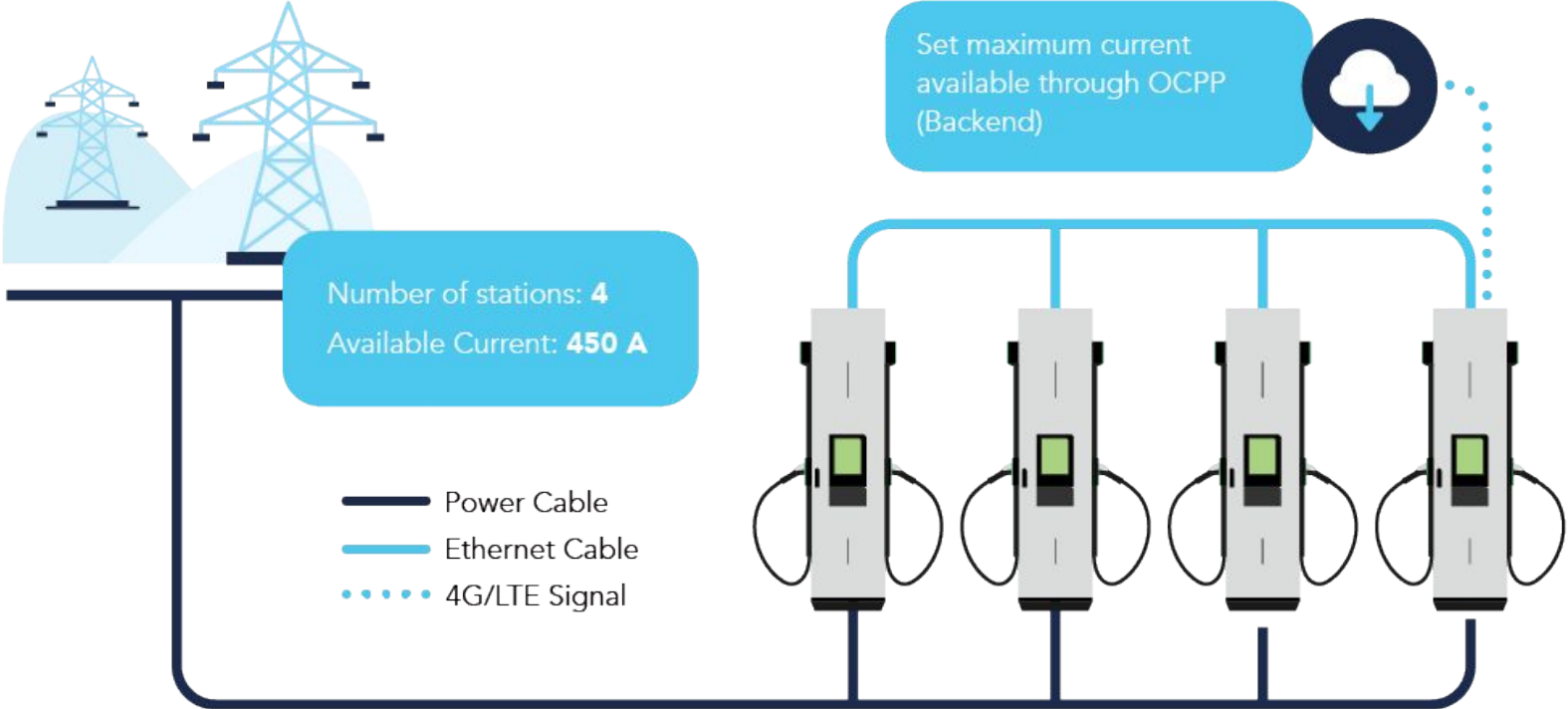
Derating: At 20°C
provides 500 A for 13 min*

Pros: Low maintenance

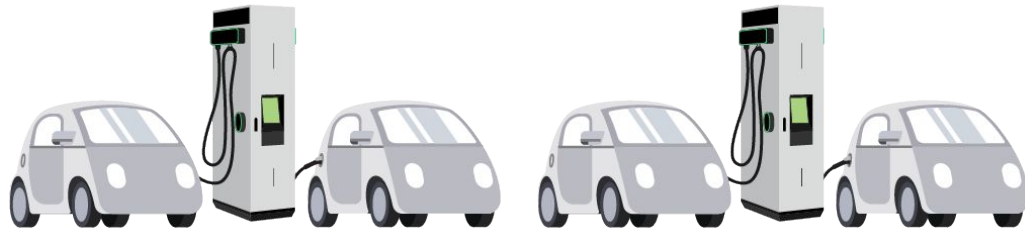
* Supplier data

Smart charging

Smart charging for Troniq Modular



Load balancing



Cluster load balancing

Effectively distributing power **between charging stations.**



Dynamic load balancing

Effectively distributing power **between a location and charging stations.**

How is the power optimized?

Set maximum amperage:

Setting the maximum amperage for your site ensures that the power limit is never exceeded and the need for grid upgrades is avoided.

Choose a prioritization strategy:

Charging sessions at your location can be optimized by implementing pre-set strategy. These strategies allow charging sessions to be prioritized by the time of arrival, as well as the state of an EV's battery thanks to the Energy Management System.



Prioritization strategies

First in, first out:

First arrived, first served:

- Prioritize new sessions
- Prioritize the oldest sessions



Prioritization strategies

Fair share:

Balance the current provided between the charging sessions:

- Prioritize new sessions
- Prioritize sessions with the lowest consumption
- Prioritize the oldest sessions



Prioritization strategies

Highest State of Charge (SoC):

Free up parking spaces more quickly:

- Prioritize new sessions
- Prioritize from the highest state of charge to the lowest
- Prioritize the oldest sessions



Prioritization strategies

Lowest SoC:

Prioritize reaching 80 percent SoC for all EVs:

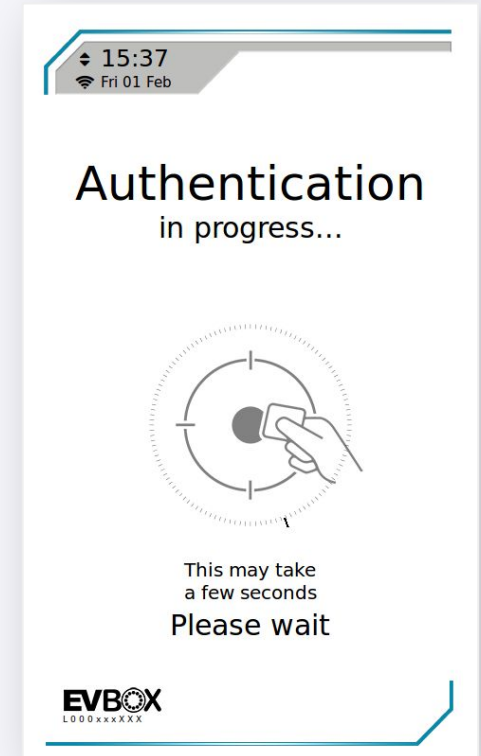
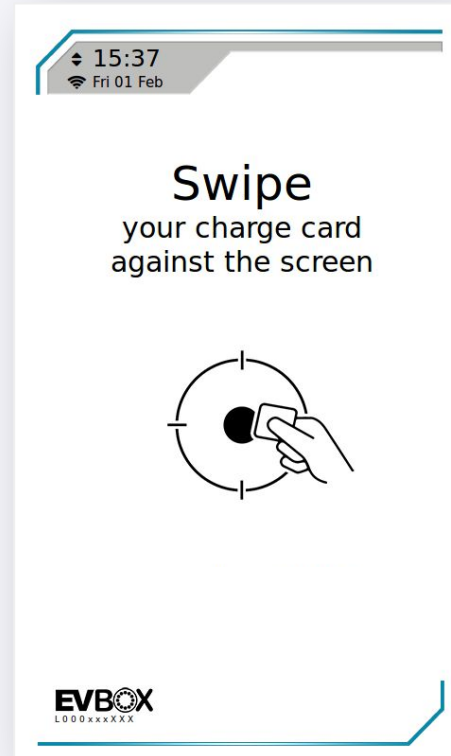
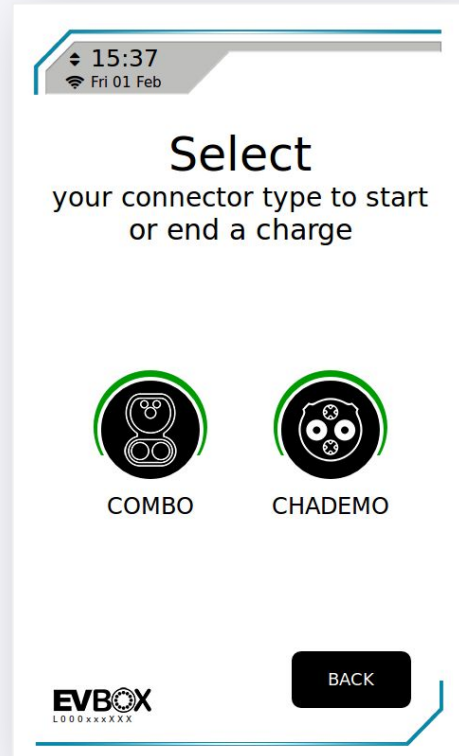
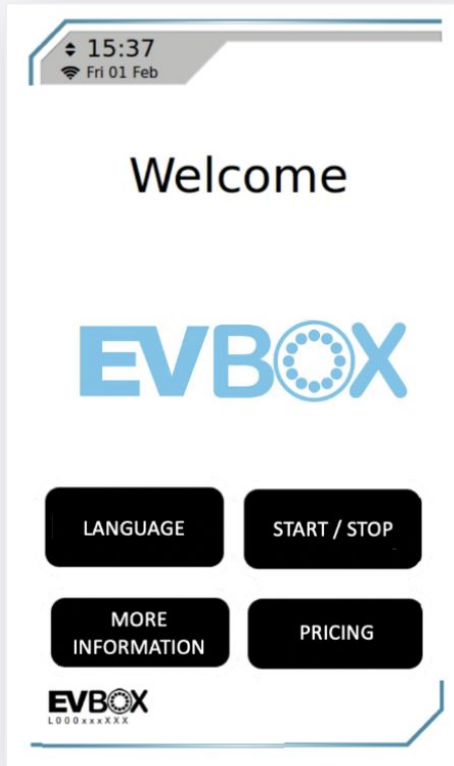
- Prioritize new sessions
- Prioritize from the lowest state of charge to the highest
- Prioritize the oldest sessions



Driver experience

User interface

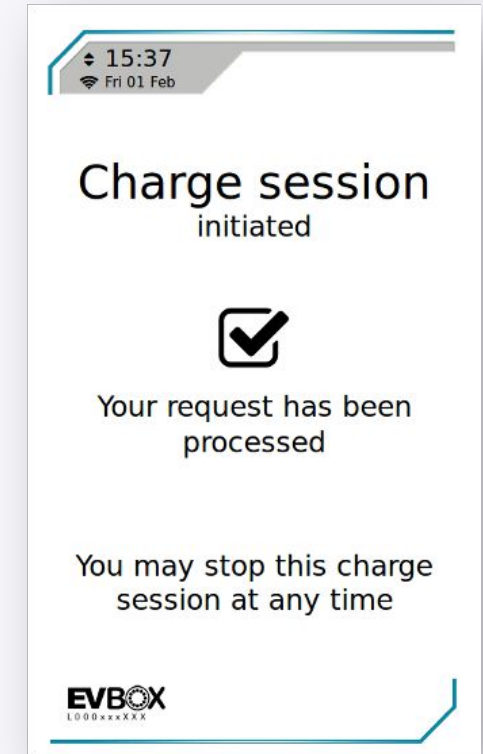
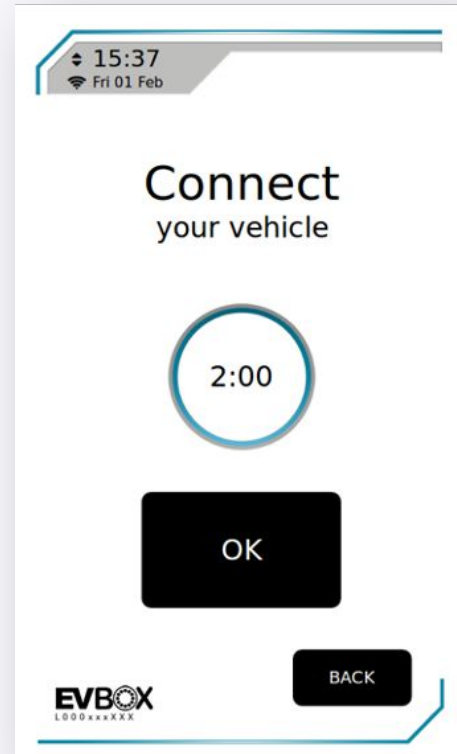
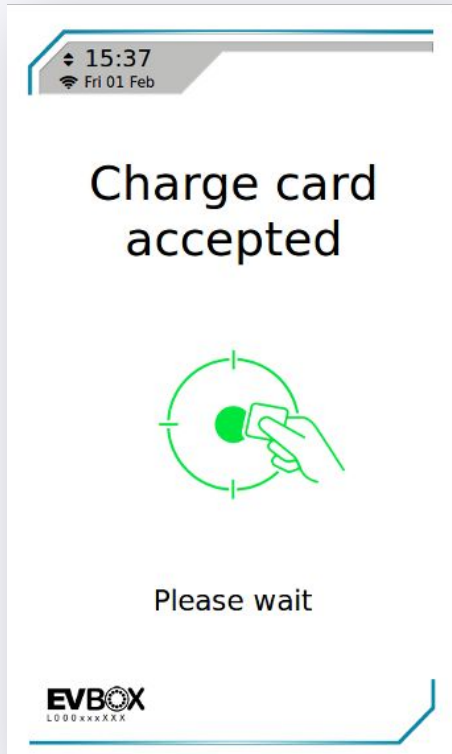
RFID start a charge



"More information" and "Pricing" buttons are optional

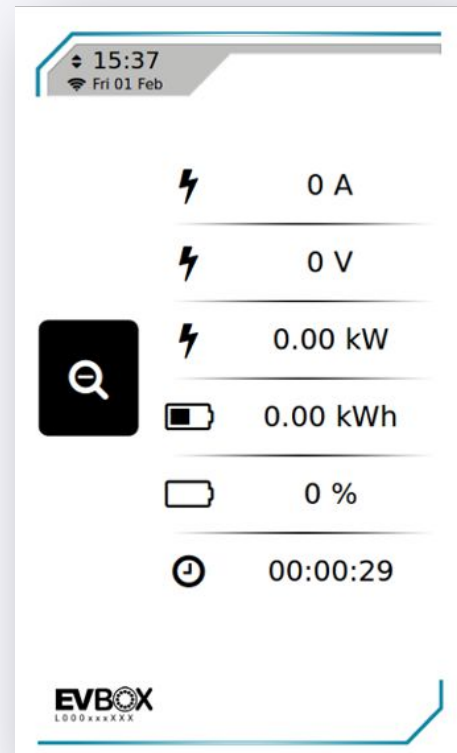
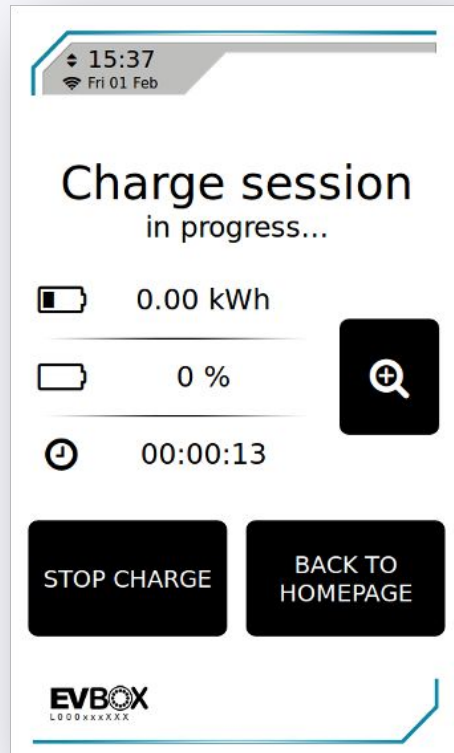
User interface

RFID start a charge



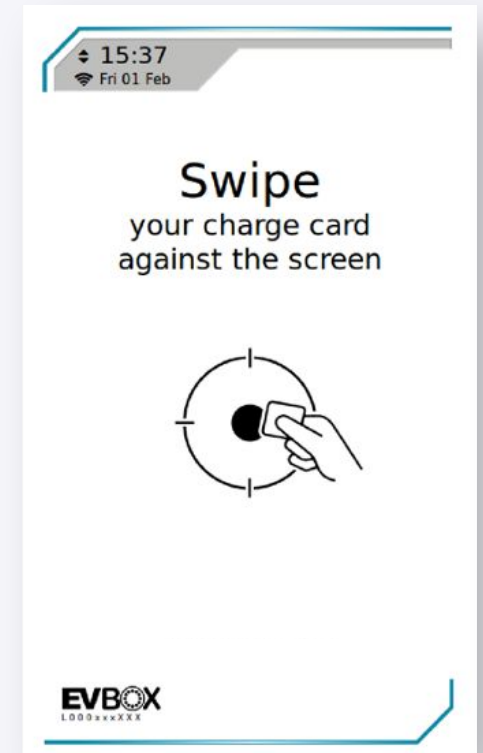
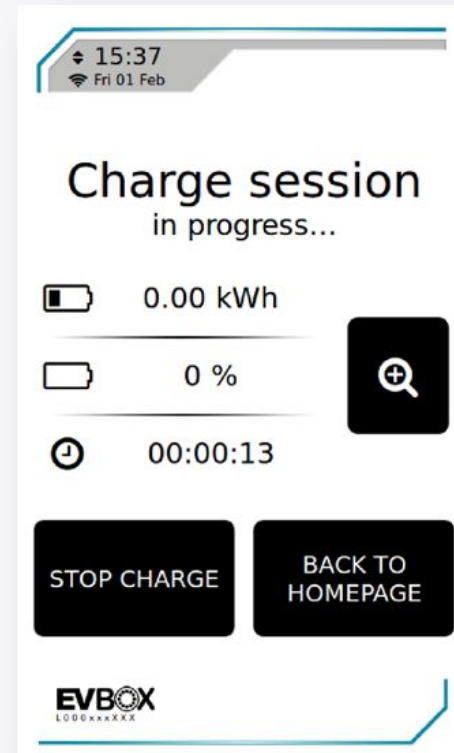
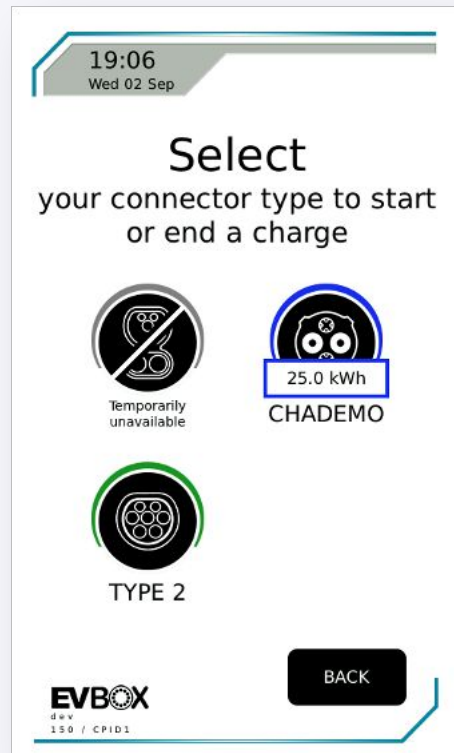
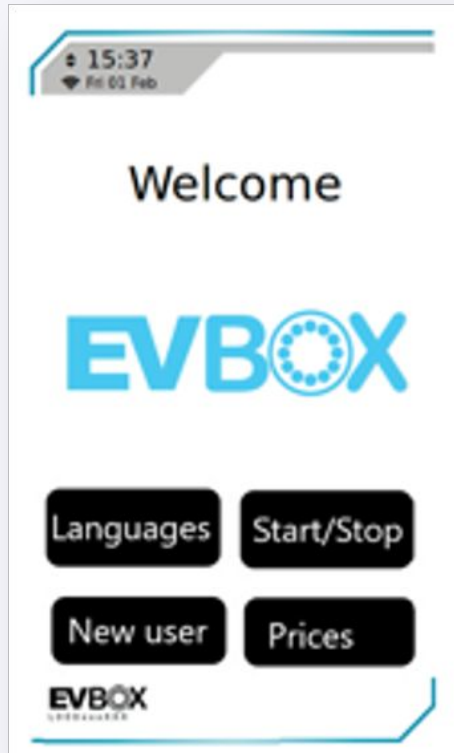
User interface

RFID start a charge



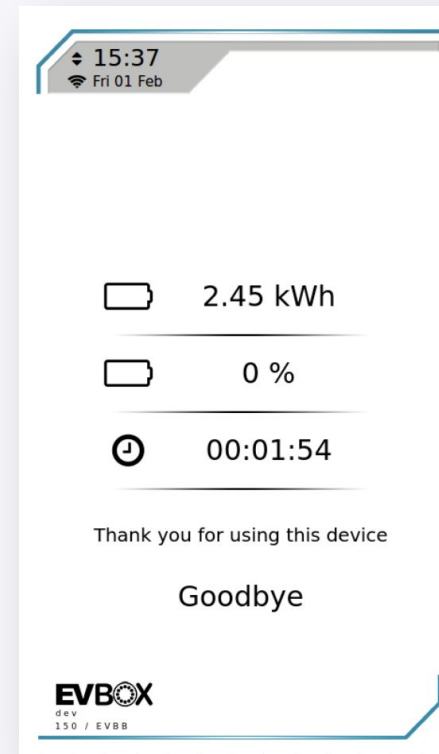
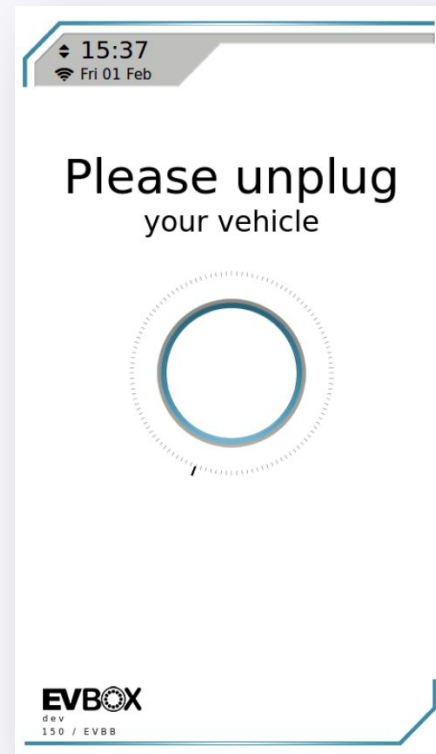
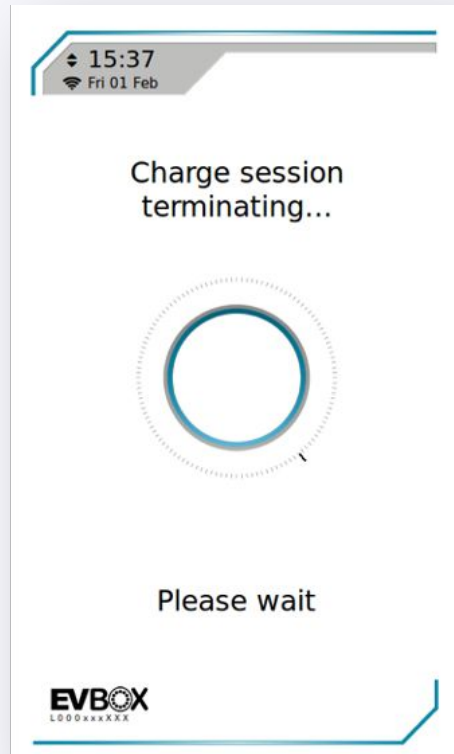
User interface

RFID stop a charge



User interface

RFID stop a charge



Payment options

Available payment options

With EVBox CMS:

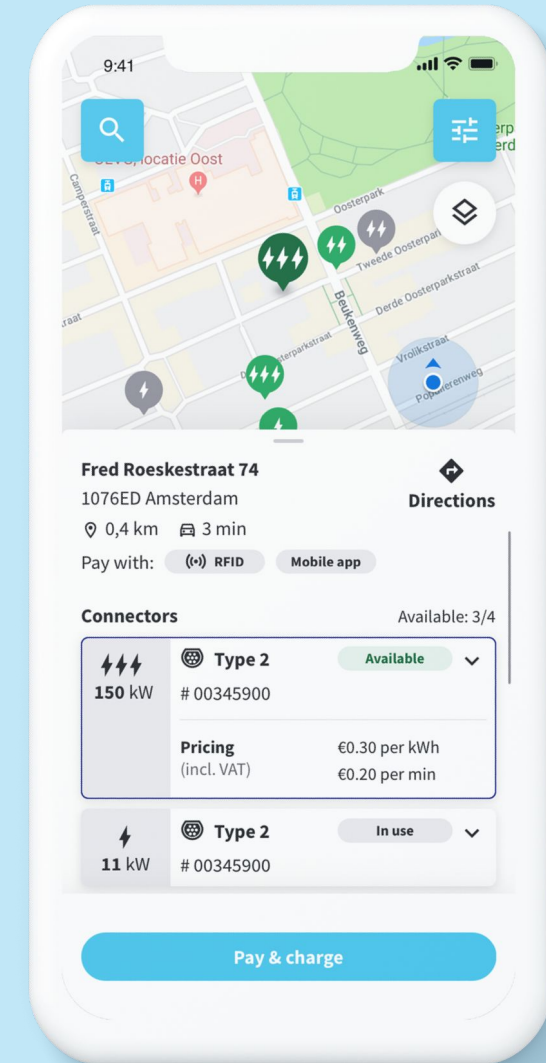
- RFID (having access to all EVBox's roaming agreements)
- Ad-hoc payments with EVBox charge App for iOS and Android
 - Station finder
 - Ad-hoc payment functionality allowing non-registered users to charge at EVBox public stations with a payment card
- EMV payment terminal*

With 3rd party backend:

- RFID (own roaming agreements)
- Ad-hoc payments (own solutions)
- EMV payment terminal**

*Coming soon

**Integration required



Payment terminal



Payter P66 contactless payment terminal



Our selected provider compatible with EVBox CMS* and third-party party backends**



Global coverage (USA, UK, EU, AU)



EMV and PCI compliant



3G, 4G, and Ethernet connectivity

*Coming soon

**Integration required



Communication flow with EVBox CMS - coming soon

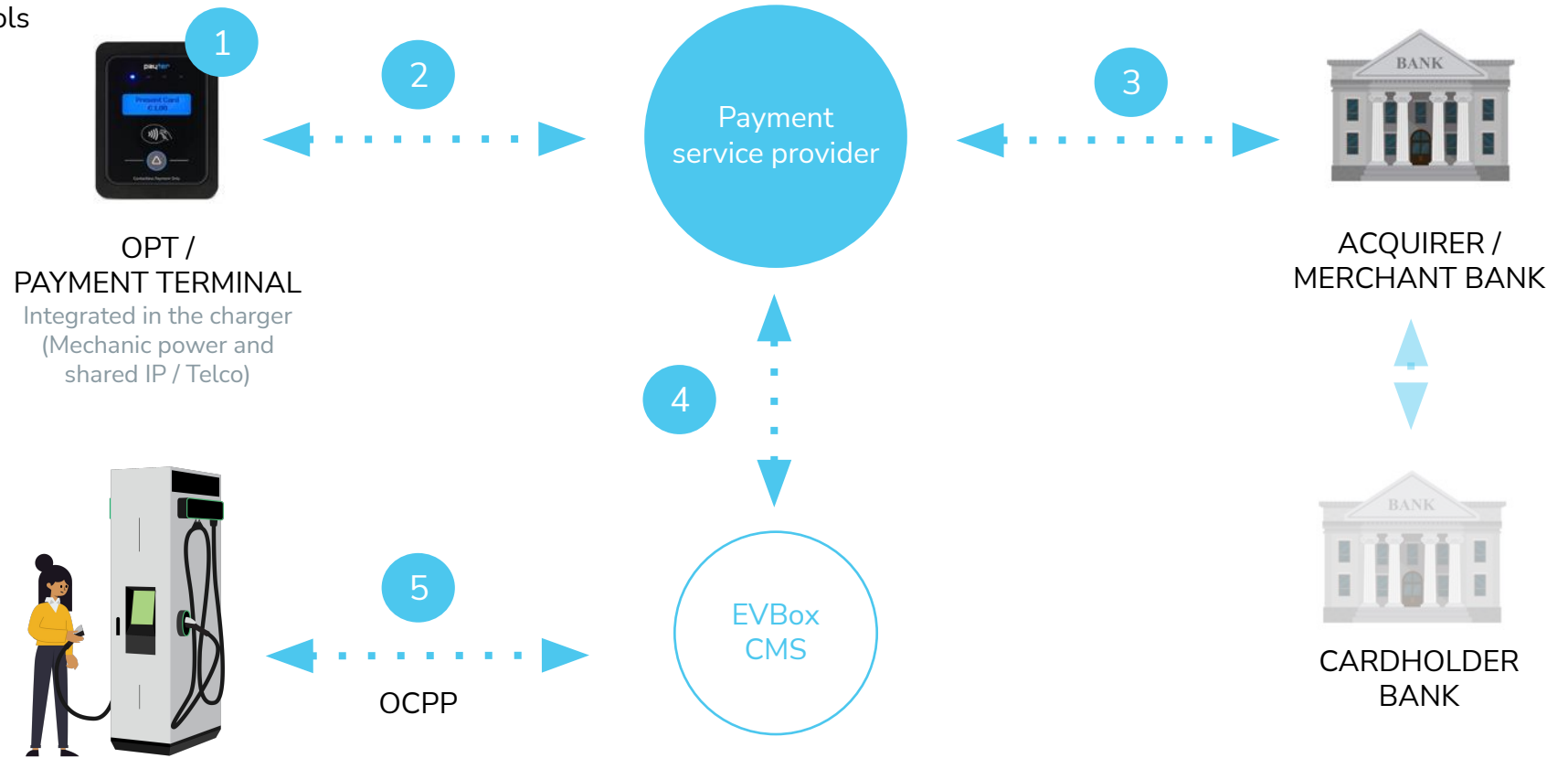
Standard OCPP Remote Start / Stop

EVBOX TURN-KEY SOLUTION

Elegant and simple integration

- ✓ Few interfaces and standard protocols
- ✓ Simple user journey

1. No action on touchscreen, customer starts by tapping card
1. Standard (EMV) & Init / PreAuth / Auth / End charge – All cards, EMV & EV car
1. Standard ISO - Init / PreAuth / Auth / Settlement
1. Specific ad hoc – Start & stop charge / Transaction details
1. Standard OCPP – Remote start / stop



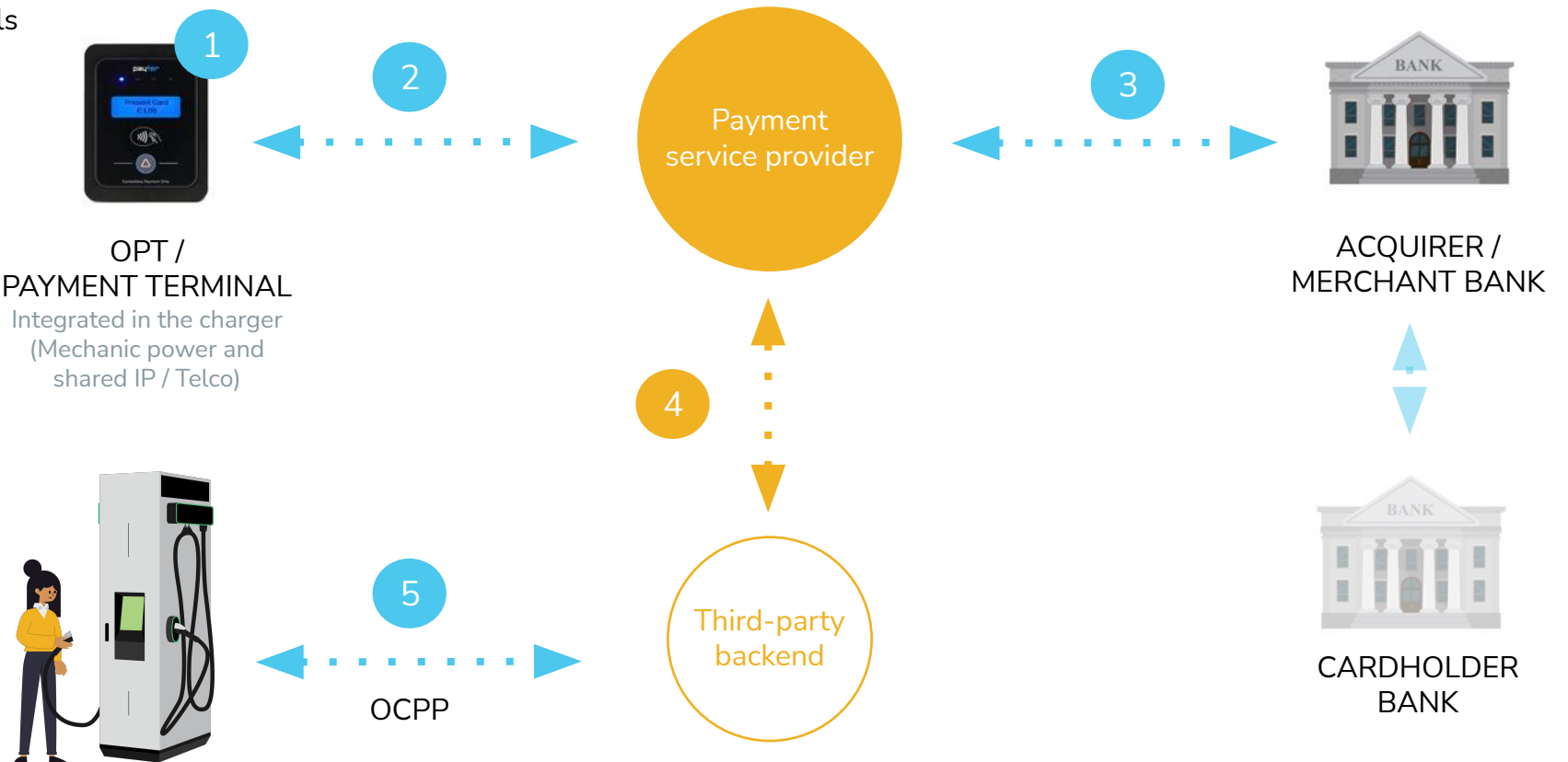
Communication flow with third-party backend

Standard OCPP Remote Start / Stop

Elegant and simple integration

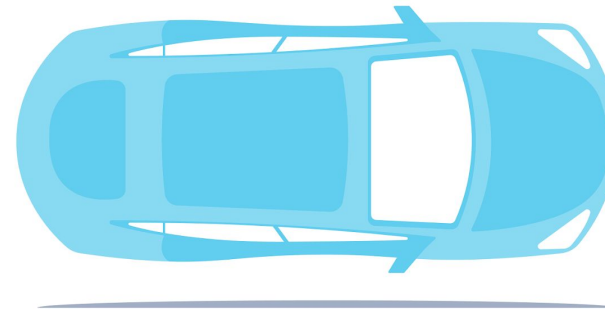
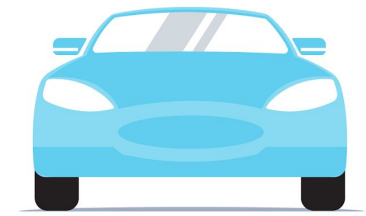
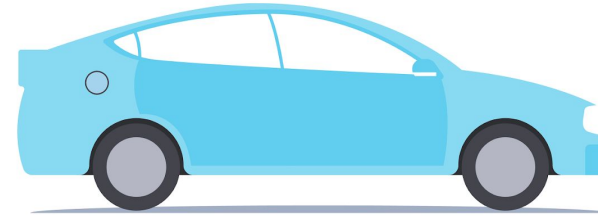
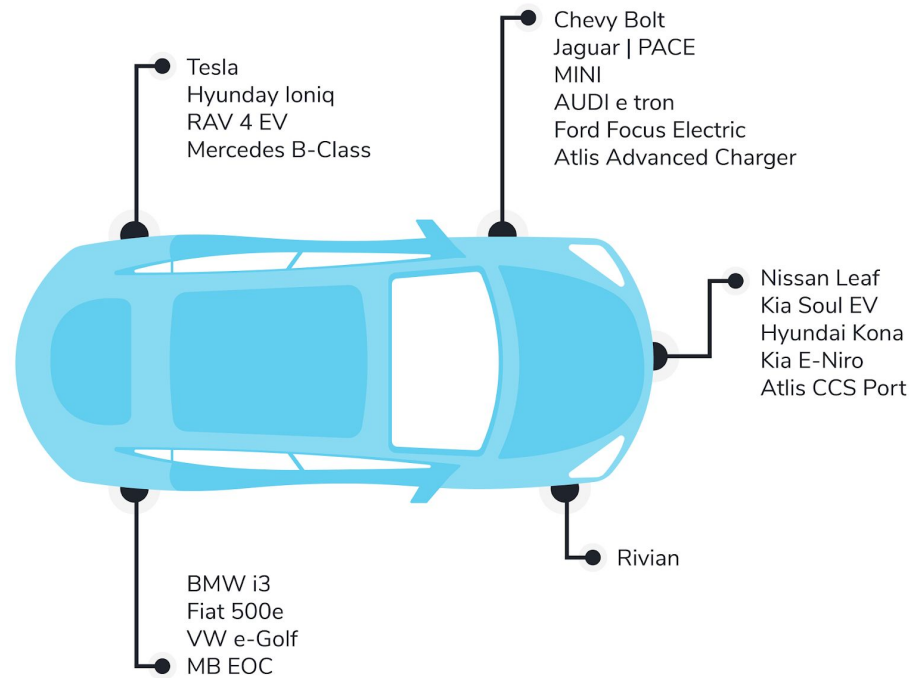
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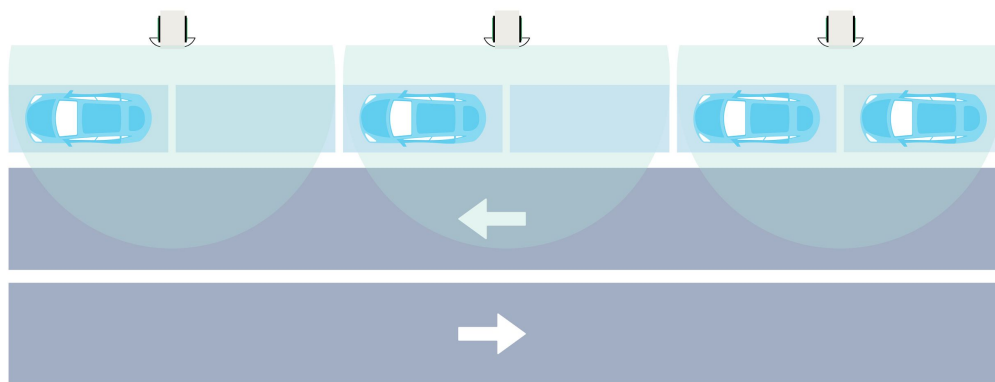
Parking layouts and cable reach

Parking layouts



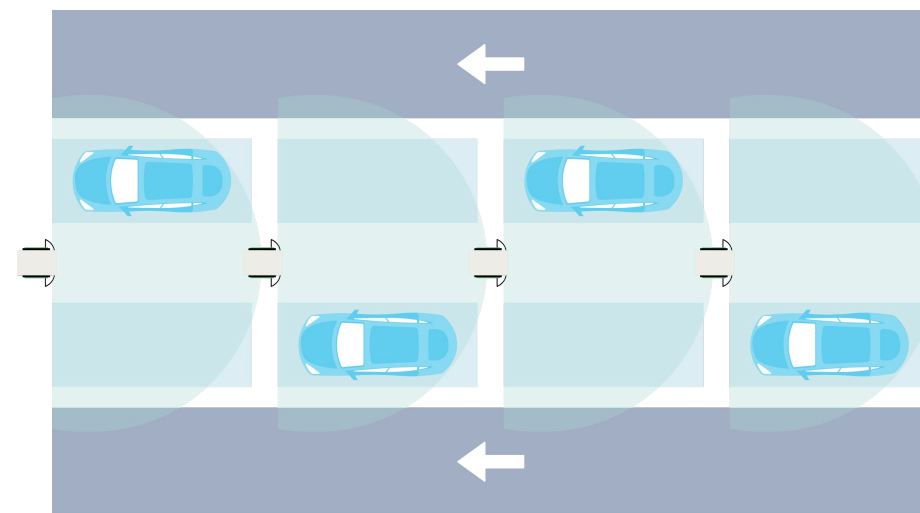
Parallel parking

Two way



Maximum cable reach 5m

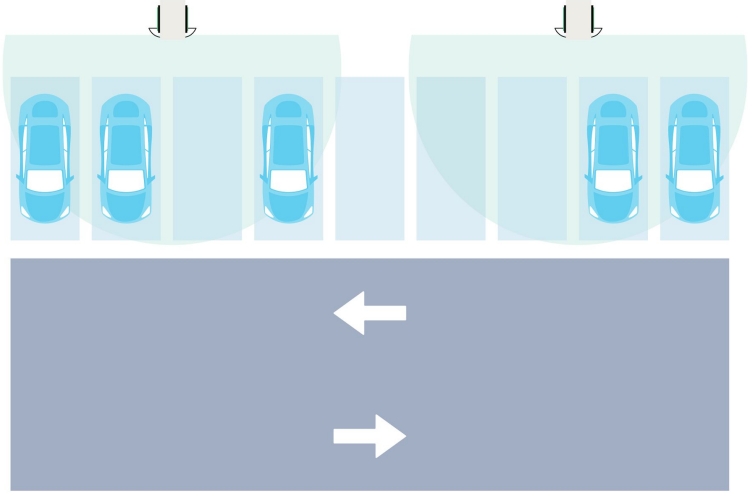
One way



Maximum cable reach 5m

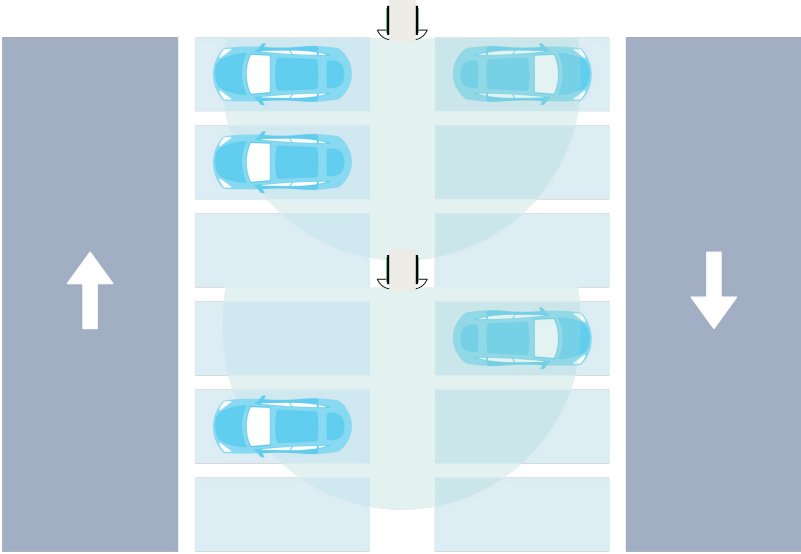
Vertical parking

Two way



Maximum cable reach 5m

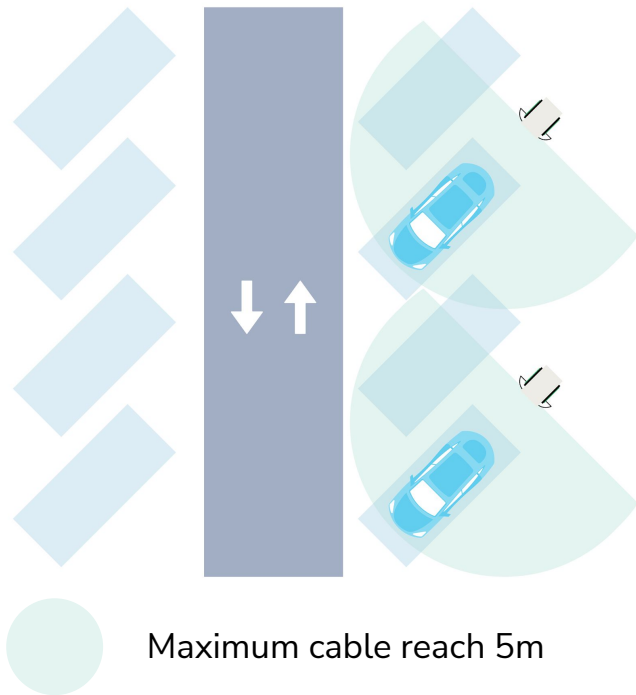
One way



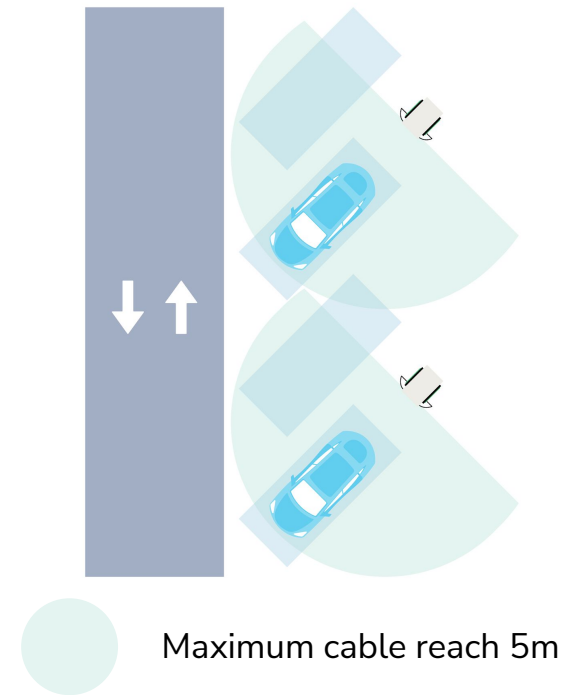
Maximum cable reach 5m

45 degree parking

Two way

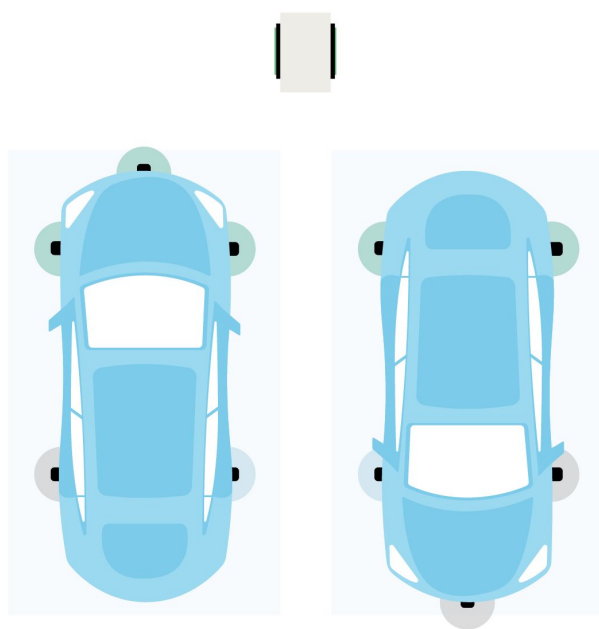


One way

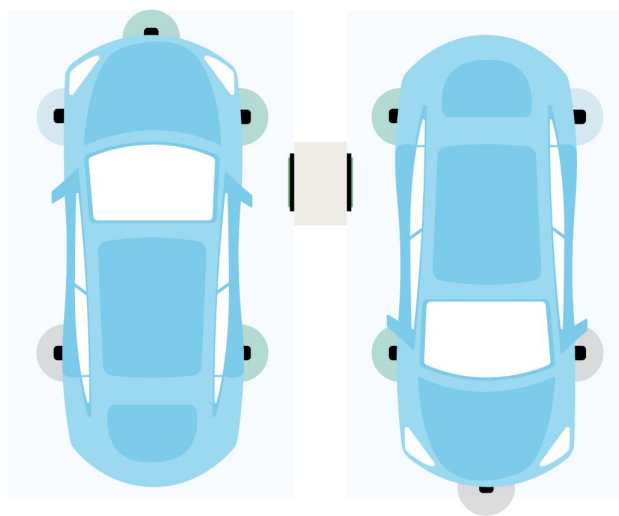


Cable reach

EVBox Troniq uses unique Cable Management System to ensure its cables are protected and can be easily maneuvered in different parking settings. EVBox Troniq's cables can reach up to 5 meters, though this will rarely be needed if the EV is parked correctly.



Curb configuration



Island configuration

-  Best reach and accessibility
-  Accessible
-  Park the other way around

Note: Accessibility can change based on exact parking position or vehicle model

Installation configurator

Installation configurator

Allowing installers to set up and adjust the product settings



Choose **customized logo** on the screen



Choose **available languages**



Choose your **backend**



Choose your **network**



Choose **authorizing/payment** options



Set your **maximum current** available



Choose **priority strategies**



...and more

Powering our sustainable future

