

EV Charging from **matt:e**

With the world embarking on the utilisation of Electric Vehicles, a smart charging solution is required to manage not only the individual charging needs of individual cars, but also to manage the significant power required from the electricity grid.

matt:e Ltd have developed a unique solution which manages cars, power, security and safety to an unprecedented level.

An issue with “smart chargers” that are currently available on the market, is that you have an expensive commodity sitting outside your office or home that is connected to “the cloud”.

This charger is susceptible to damage, vandalism and increasingly, cyber-attacks.

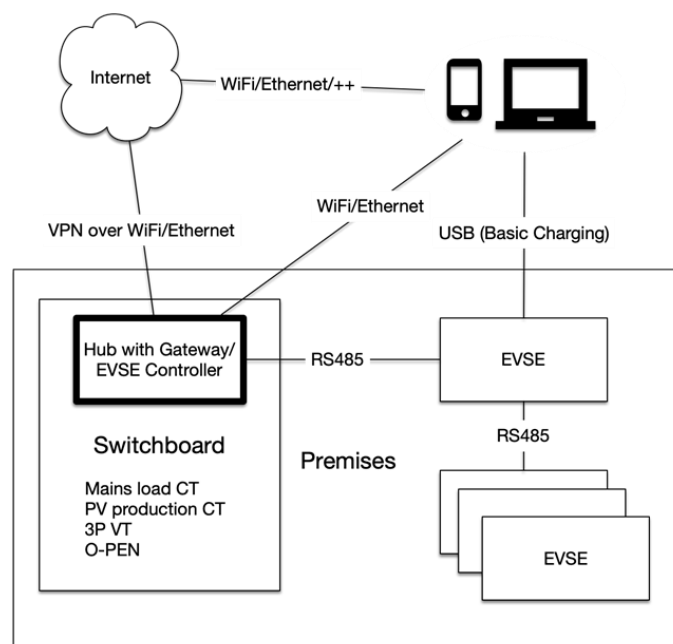
Signal strength through Wi-Fi and mobile networks can be erratic and variable. These weaknesses can lead to the whole charging system needing to be replaced.

At matt:e Ltd, we have re-thought what a charging system should look like and we have built it.

Firstly, for our unique solution we decided that the chargers should be split into two parts; one part inside and one part outside the building.

The outside “smart socket” part is where a car plugs in.

Secondly, we moved “the brains” of the system into a remote unit which can be placed in a secure location, and also where internet signals are the strongest. We call this the “hub”.

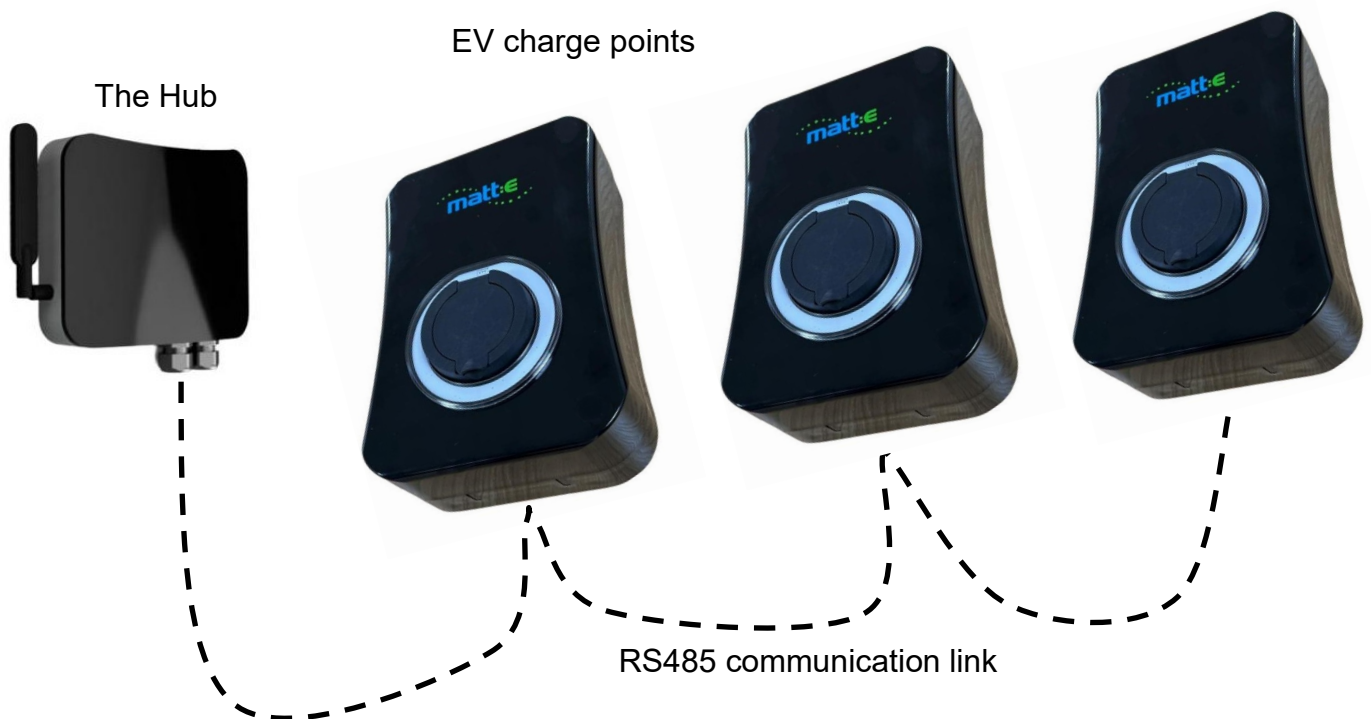


Start with one...

The indoor unit is the hub of the charging system and can control over 200 smart sockets.

The hub can be placed next to the incoming electricity supply which is also monitored. EV charging uses a great deal of electrical power - more so than perhaps anything else in a building.

The hub will dynamically balance the power given to all of the chargers ensuring the safety and integrity of the building's electricity supply. Additionally, the hub can detect excess electricity being generated from Solar PV and batteries, and it can utilise this generated power exclusively if required.



Add more as required...

When they are ready to expand simply add further sockets which are controlled by the hub.

For example, if a car park at an office block only initially needs one charger the customer can start with a hub and one smart socket. When they are ready to expand, they will just need to purchase the number of smart sockets needed which can be connected to and controlled by the existing hub. The Hub is able to accommodate hundreds of EV sockets.

Each new smart socket can be installed with power cable, either up to 32A single-phase or up to 32A three-phase, with the data cable ran between the new sockets and the existing one. The hub will dynamically detect and control all sockets automatically.

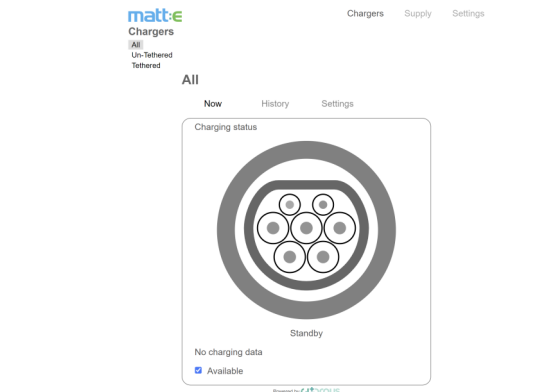
If multiple lamp post chargers or on-street parking bays are required, then the hub can be installed in a secure location, and multiple smart sockets can be connected through the data cable. Entire streets of lamp post chargers or parking bays can be dynamically controlled to manage power availability.

All the data for all smart sockets are cyber-security-activated and controlled through a VPN (Virtual Private Network), ensuring high levels of security against cyber-attack.

Simple set up and operation...

System set up couldn't be simpler using the matt:e portal.

Here the installer or user can select charge schedules, set the load limit for the building, enable Solar matching as well as start and stop charge sessions, lock off chargers when not in use and if needed carry out over the air software updates.



Cost effective expansion....

As a single hub can control multiple charge points this system can significantly reduced costs when multiple charge points are being installed at a single location.

Unprecedented Safety....

Matt:e Ltd owns an international patent to "Open PEN/floating Neutral Technology" as used by the EV charging industry. We have integrated this safety-focused technology into our charging systems. Under current international legislation, IEC 61851, Electric Vehicle charge points cannot break the earthing connection.

Ordinarily, open-neutral detection would be installed separately and away from the EV charge point, but as we are installing the hub separately to the smart socket, we have enabled this important safety feature to reside at the switchboard.

This provides us with a unique place in the global charging market as one of the safest charging technologies available world-wide.

Global Trust....

Matt:e Ltd is trusted by global organisations including Shell, BP, Centrica (British Gas), and hundreds of national organisations including Royal Mail Group, City Electrical Factors, Rexel Group, Edmundsons Electrical and others. Our technology has been installed into multiple Government and private organisations.

Please contact us today to start your journey into safe electrified transport.



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